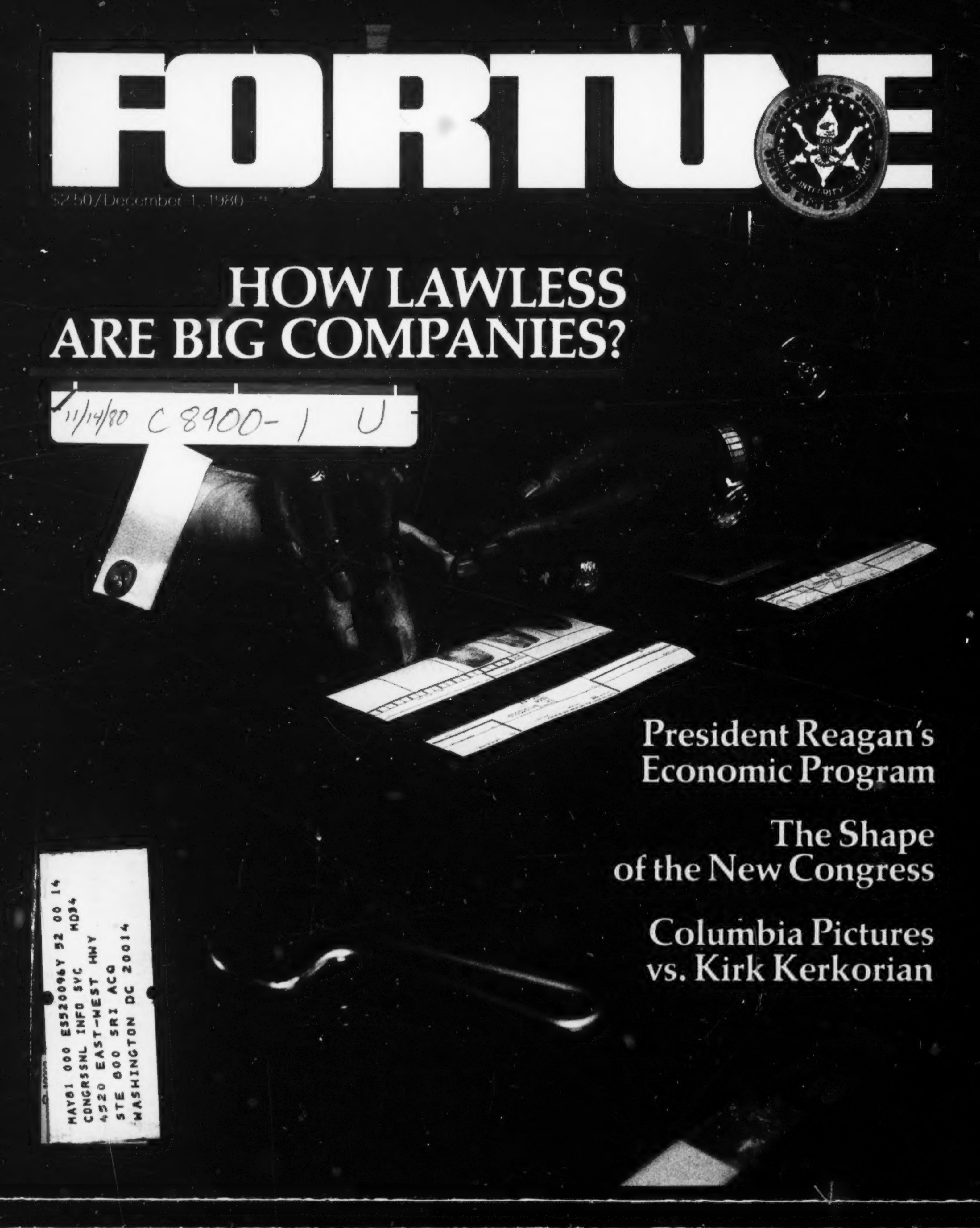

FORTUNE

$2.50/December 1, 1980

HOW LAWLESS ARE BIG COMPANIES?

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President Reagan's Economic Program

The Shape of the New Congress

Columbia Pictures vs. Kirk Kerkorian

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WASHINGTON DC 20014

To take the cover photograph, Patrick D. Pagnano went to the U.S. Courthouse in Manhattan, where a deputy U.S. marshal demonstrated the art of fingerprinting. A story on the surprisingly large number of big companies that have committed serious crimes begins on page 56.

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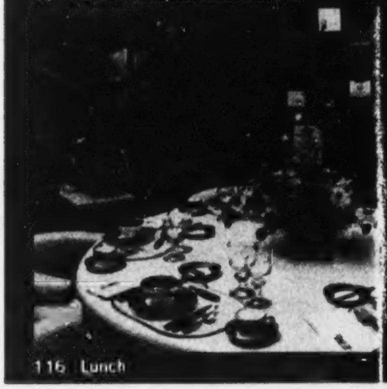

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ACKNOWLEDGMENTS

6—Alfred Eisenstaedt, Martin Dain (2). 9,10—Chartmakers Inc. 15—Courtesy of Sun Oil Co. Inc. 49,52,54—Michael McGinn. 56—Ed Gallucci. 58—Al Freni. 75—Dirck Halstead, construction by Nicholas Fasciano, photographed by Al Freni. 76—Dennis Brack–Black Star, nc, Walter Bennett for *Time*. 77—Walter Bennett for *Time*, Dennis Brack–Black Star, Roddey E. Mims for *Time*. 85—Art by W. B. Park, chart by William Reduto. 88—John Zimmerman. 93—Courtesy Du Pont. 128,129—William Reduto. 135—Illustration by Denis Orloff, chart by Fortune Art Dept. 143—Al Freni. 155—U.S. Army photograph: Dick Johnson.

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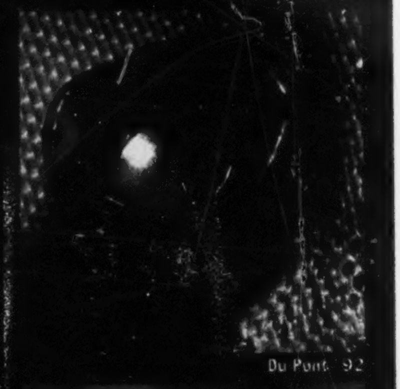

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How Lawless Are

FORTUNE
December 1, 1980

Big Companies?

by IRWIN ROSS

A look at the record since 1970 shows that a surprising number of them have been involved in blatant illegalities.

Crime in the executive suites has come to command media attention of a sort formerly reserved for ax murders. An abundance of anecdotal evidence about corrupt practices—commercial bribery, price-rigging schemes, fraud against customers—has led critics of business to charge that far more crime exists than has come to light. Defenders of business, on the other hand, argue that the well-publicized episodes are aberrations, totally untypical of the way corporate America operates.

The big cases are often shockers. Bethlehem Steel, for example, was recently fined $325,000 in connection with an elaborate kickback scheme that involved the laundering in Europe of hundreds of thousands of dollars in phony commissions and the return of the cash by courier for distribution as bribes. Such sleazy goings-on by a company as prestigious as Bethlehem indicate that big-business crime hasn't been swept away in a tide of post-Watergate morality. But no single case tells much about the extent of corporate delinquency in America. Hence the compilation by FORTUNE on the accompanying three pages of significant corporate offenders and offenses since 1970.

The guidelines

There is, of course, no standard definition of corporate corruption. Our list is limited to five crimes about whose impropriety few will argue—bribery (including kickbacks and illegal rebates); criminal fraud; illegal political contributions; tax evasion; and criminal antitrust violations. The latter consist entirely of price-fixing and bid-rigging conspiracies and exclude the vaguer and more contentious area of monopolistic practices, which are the subject of civil antitrust suits. Also excluded are Federal Trade Commission complaints that have to do with the ways companies "signal" price changes to competitors.

Of the 1,043 major corporations in the study, 117, or 11%, have been involved in at least one major delinquency in the period covered (see pages 58 to 61). Some companies have been multiple offenders. In all, 188 citations are listed covering 163 separate offenses—98 antitrust violations; 28 cases of kickbacks, bribery, or illegal rebates; 21 instances of illegal political contributions; 11 cases of fraud; and five cases of tax evasion. This roll call of wrongdoing is limited to domestic cases; the list would have been longer had it included foreign bribes and kickbacks.

All the cases resulted either in conviction on federal criminal charges or in consent decrees (or similar administrative settlements), in which companies typically neither affirm nor deny past delinquencies but agree not to commit them in the future. Many of the defendants were convicted on pleas of nolo contendere (no contest)—tantamount to guilty pleas but often preferred by defendants for both psychological and practical reasons. To unsophisticated ears, a nolo plea does not have the ring of a confession of guilt. A practical benefit in an antitrust case is that the nolo plea cannot be used as automatic evidence of guilt in a civil suit for treble damages.

Eleven percent of major American corporations involved in corrupt practices is a pretty startling figure. It would hardly be as startling, of course, if it referred to businesses of modest size, for which data are lacking. The bribing of purchasing agents by small manufacturers and the skimming of receipts by cash-laden small retail businesses are a commonplace of commercial life.

Our compilation of cases covered a substantial slice of time, to be sure, and management changed in many of these large companies during the period; after a major scandal, the culprits were often sacked and the board of directors took sweeping measures to avoid a recurrence. On the other hand, it is axiomatic that there was more crime than was exposed in public proceedings.

A number of companies have been repeat offenders. Ashland Oil, for example, pleaded guilty to making a $100,000 illegal political contribution. It was also convicted, after a nolo plea, of fixing the price of resins. This year its construction subsidiary pleaded guilty in three cases of rigging bids for highway construction work in Virginia.

Gulf Oil has four entries on the list—two for illegal political contributions, one for bribing an IRS agent, one for fixing the price of uranium. International Paper was convicted three times, after nolo pleas, in major antitrust cases—involving paper labels, folding cartons, and corrugated containers. Eastex Packaging Inc., a subsidiary of Time Inc., the publisher of FORTUNE, was one of 22 other companies convicted in the folding-carton case.

Briefcases full of cash

In the Bethlehem Steel case, the company pleaded guilty to criminal activity over five years, 1972-76, but the government contended that the kickbacks had been going on for a much longer time. The purpose of the scheme was to bribe representatives of ship lines to steer repair work to Bethlehem's seven shipyards or to speed up payment of bills.

Since 1961, according to the indictment, Bethlehem had been using a Swiss company called Office pour le Financement du Commerce et de l'Industrie to launder the kickback money. OFCI was a convenient conduit, for it had a worldwide network of agents who drummed up ship-repair business.

continued

Research associate: Philip Mattera

Clifford R. Wise, head of Bethlehem's ship-repair sales office in New York, would send payments to OFCI that ostensibly represented sales commissions but actually were levies fraudulently added to customers' bills. After the money was entered into OFCI's books (OFCI taking a cut for its cooperation), it was available for recycling back to the U.S. Typically, Wise or his secretary would fly to Switzerland, stuff a briefcase with cash, and return to New York. Over five years, according to the indictment, a million dollars was funneled into the U.S. and two South American countries; on just one day in August 1975, Wise flew $115,000 in cash over to New York. The government traced some $400,000 to kickbacks. What happened to the rest of the money is not altogether clear. Bethlehem is seeking the return of funds it claims Wise embezzled; he denies the charges.

In several celebrated cases, illegal corporate political contributions have also been part of an elaborate pattern of deception that went on for many years. For more than a decade, for example, Gulf Oil used a subsidiary in Nassau to launder funds sent from the U.S., ostensibly to be used to prospect for oil. At least $4.5 million returned to these shores to be distributed as political handouts.

Firestone Tire & Rubber Co., according to the findings of its audit committee, was in the business of doling out illegal political contributions from at least 1960 through 1973. But Firestone's audit committee discovered that the volume of funds "appropriated" for political purposes, as it put it, increased substantially after 1968, when Robert P. Beasley became chief financial officer and overseer of the political slush fund. In 1972, for example, Beasley got Raymond C. Firestone, then the chief executive, to initial a treasury voucher authorizing the transfer of $107,777 in Firestone funds to an outside bank account controlled by Beasley. Top officers of the corporation would make personal political contributions, all apparently quite legal, and be reimbursed in cash by Beasley.

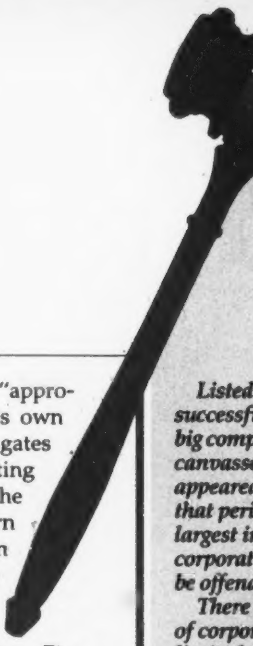
Beasley was simultaneously "appropriating" Firestone funds for his own use—an indication of the sluice gates that are opened once accounting controls are relaxed. In the end, the U.S. Attorney for the Southern District of New York charged him with embezzling $1 million; he pleaded guilty to charges involving nearly half that sum and received a four-year sentence. Firestone was convicted on tax charges relating to $12.6 million in corporate income that Beasley had put in special reserve accounts and failed to report at the proper time.

From one point of view—say that of a librettist for a corporate version of *Guys and Dolls*—these shenanigans are pretty comic. A moralist, or even an amateur dabbler in corporate sociology, would find them hair-raising. What indeed is going on here? Why do some of the largest, most prestigious corporations in America get involved in complex scenarios of illegality that rival the paranoid fantasies of their bitterest critics?

No single answer accounts for the variety of corporate misbehavior. One generalization often invoked plays on the distinction between *malum in se*—a crime in itself, like the immemorial offenses of the common law—and *malum prohibitum*—purely statutory crimes that vary with the society. As a celebrated corporate defense counsel recently put it, "These business crimes are perceived by individual actors as victimless. We all grew up in an environment in which we learned that thou shalt not murder, rape, rob, probably not pay off a public official—but not that it was a crime to fix prices."

Most of the economic crimes that fill the lists on the following pages do not bring the social obloquy that attaches to robbery or embezzlement. One chief executive recently boasted to FORTUNE about how he had once rid his company of some executives who had run afoul of the antitrust laws. "That sent the message to the organization," he said. Ten minutes later,

Text continued on page 62



A Roster

Listed on these pages are the major successful federal cases against big companies since 1970.* FORTUNE *canvassed the 1,043 companies that appeared at some point during that period on our lists of the 800 largest industrial and non-industrial corporations; 117—11%—turned out to be offenders.

There is no standard definition of corporate corruption. The list is limited to five offenses about whose impropriety there is little argument—bribery (including kickbacks and illegal rebates), criminal fraud, illegal political contributions, tax evasion, and criminal antitrust violations—all undertaken for the benefit of the corporation rather than for personal profit. Not included are crimes directed against the corporation, such as embezzlement. The list excludes bribery, kickbacks, and "questionable" payments made abroad. (The one exception is United Brands' $1.2-million bribe to a Honduran official, because many of the events surrounding it occurred in the U.S.) All the cases resulted either in conviction on criminal charges or in consent decrees (or similar administrative settlements), in which the companies neither affirm nor deny past transgressions but agree not to commit them in the future. Fifty executives from 15 companies went to jail in various of these cases. Fines were levied on most of the convicted companies but aren't listed unless they came to $500,000 or more.

Minor cases of corruption far down the chain of command have been excluded. The standard throughout was corporate responsibility at a high level.

In the lists that follow, the dates refer to the year that the indictments or complaints were filed.

# of Wrongdoing

COMPANY	OFFENSE
Allied Chemical	**1974** – Fixing prices of dyes. Pleaded nolo contendere. **1979** – Tax fraud related to paying kickbacks. Nolo plea on some charges.
Amerada Hess	**1976** – Fixing prices of gasoline. Convicted after trial. Executive acquitted. Conviction being appealed.
American Airlines	**1973** – Illegal campaign contributions of $55,000. Guilty plea. **1975** – CAB charges related to slush fund used for contributions. Settlement. **1977** – SEC charges related to same. Consent decree.
American Bakeries	**1972** – Fixing prices of bread. Nolo plea.
Amer. Beef Packers	**1975** – Company and president charged with defrauding a creditor. Both found guilty on some counts. **1976** – SEC charges related to same matter. Injunction against president.
American Brands	**1978** – James B. Beam subsidiary and two executives charged with bribery of state liquor official. All pleaded guilty.
American Can	**1976** – Company and executive charged with fixing prices of folding cartons. Nolo pleas by both.
American Cyanamid	**1974** – Fixing prices of dyes. Nolo plea.
American Export Ind.	**1979** – American Export Lines subsidiary[1] charged with fixing prices of ocean shipping. Nolo plea.
Anheuser-Busch	**1977** – SEC charges concerning $2.7 million in payments to customers. Consent decree. **1978** – Treasury Dept. charges about same matter. Settlement and $750,000 fine.
Archer-Daniels-Midland	**1976** –Defrauding grain buyers by short-weighting. Nolo plea.
Arden-Mayfair	**1971** – Company and executive charged with fixing prices of dairy products. Nolo pleas. **1977** – SEC charges related to $4.4 million in rebates and off-book accounts. Consent decree. **1978** – Price fixing of dairy products. Nolo plea.
Armco	**1973-77** – Three cases of fixing prices of steel reinforcing bars. Nolo pleas by company and three executives.
Ashland Oil	**1973** – Illegal political contribution of $100,000. Guilty plea. **1975** – SEC charges about allegedly illegal payments. Consent decree. **1977** – Fixing prices of resins used to make paint. Nolo plea. **1980** – Ashland–Warren subsidiary pleaded guilty in three cases involving bid rigging in highway construction. Fined a total of $1.5 million.
Associated Milk Prod.	**1974** – Illegal political contributions. Guilty plea.
Beatrice Foods	**1974** – Fixing prices of toilet seats. Company and president of Beneke division pleaded nolo. **1978** – SEC charges about improper accounting for $11.7 million in rebates. Consent decree.
Bethlehem Steel	**1973-74** –Two cases of fixing prices of steel reinforcing bars. Company and one employee pleaded nolo; another convicted after trial. **1980** – Mail fraud related to bribes paid for ship-repair business. Guilty plea.
Boise Cascade	**1978** – Fixing prices of corrugated containers. Nolo pleas by company and two plant managers.
Borden	**1974 & 1977** – Two cases of fixing prices of dairy products. Company and three executives pleaded nolo.
Borg-Warner	**1971** – Fixing prices of plastic pipe fittings. Nolo plea.
Braniff International	**1973** – Illegal political contribution of $40,000. Guilty pleas by company and chairman. **1975** – CAB allegations about contribution. Settlement. **1976** – SEC charges related to $900,000 slush fund and contributions. Consent decree. **1977** – Criminal restraint of trade. Nolo plea.
CPC International	**1977** – Fixing prices of industrial sugar. Nolo plea.
Carnation	**1971** – Fixing prices of dairy products. Company and executive pleaded nolo. **1973** – Illegal political contributions of $9,000. Company and chairman pleaded guilty. **1974** – Fixing prices of dairy products. Nolo pleas by company and general manager.
Carter Hawley Hale	**1974** – Bergdorf Goodman subsidiary charged with fixing prices of women's clothing. Company and executive pleaded nolo.
Ceco	**1973-77** – Three cases involving fixing prices of steel reinforcing bars. Company and one executive pleaded nolo; another executive convicted after trial.
Celanese	**1971** – Fixing prices of plastic pipe fittings. Company pleaded nolo; executive acquitted.
Cenco	**1976** – SEC charges related to falsifying inventory. Seven of eight former executives signed consent decrees. **1979** – Seven executives indicted on criminal charges of mail fraud related to the same scheme. Three pleaded guilty, three convicted after trial, and one acquitted of fraud charges. Convictions are being appealed.
Champion Intl.	**1974** – Bid rigging in purchase of timber from public lands. Company found guilty after trial. Executive acquitted. **1976** – Fixing prices of folding cartons. Nolo plea.
Chemical New York	**1977** – Chemical Bank charged with violations of Bank Secrecy Act in scheme by two branch officials to launder money for alleged narcotics dealer. Officials pleaded guilty to tax charges and company to reduced charges.
Chicago Milwaukee	**1976** – SEC allegations of improper use of assets and political contributions. Consent decree.
Combustion Engin.	**1973** – Fixing prices of chromite sand. Company and executive pleaded nolo.
Consolidated Foods	**1974** – Fixing prices of refined sugar. Nolo plea.
Continental Group	**1976** – Fixing prices of paper bags. Company and one executive convicted after trial; two others acquitted. Company fined $750,000.
Cook Industries	**1976** – Defrauding grain customers by short-weighting. Company pleaded nolo and five executives pleaded guilty.
Dean Foods	**1977** – Price fixing of dairy products. Nolo pleas by company and executive.
Diamond International	**1974** – Illegal campaign contributions of $6,000. Company and executive pleaded guilty. **1974** – Fixing prices of paper labels. Nolo pleas by company and two executives. **1976** – Fixing prices of folding cartons. Company and seven executives pleaded nolo.
Diversified Industries	**1976** – SEC charges related to alleged short-weighting of customers in metal-recovery processes. Consent decree.
Du Pont	**1974** – Fixing prices of dyes. Nolo plea.

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[1] Acquired by Farrell Lines in 1978.

A Roster of Wrongdoing

COMPANY	OFFENSE
Equity Funding	**1973** – SEC charges relating to $2 billion in fictitious insurance policies. Consent decree. **1973** – Former chairman and 21 other former executives charged with fraud. All pleaded guilty to some counts.
FMC	**1976** – Fixing prices of persulfates. Company and executive pleaded nolo.
Federal Paper Board	**1976** – Fixing prices of folding cartons. Company and two executives pleaded nolo.
Federated Dept. Stores	**1976** – I. Magnin subsidiary charged with fixing prices of women's clothing. Nolo plea.
Fibreboard[2]	**1976** – Fixing prices of folding cartons. Company and executive pleaded nolo.
Firestone	**1976** – SEC charges about slush fund and allegedly illegal political contributions of $330,000. Consent decree. **1979** – False tax-return charges related to $13 million in set-aside income. Guilty plea on some counts.
Flavorland Industries	**1979** – Fixing prices of meat. Nolo plea.
Flintkote	**1973** – Fixing prices of gypsum board. Company, chairman, and president pleaded nolo.
Franklin New York	**1974** – SEC charges against nine executives relating to the bankruptcy of Franklin National Bank. Company and eight executives signed consent decree. **1975** – Eight former executives and employees of bank charged with fraud. All pleaded guilty. **1978** – Three other former executives charged with fraud. All convicted after trial.
Fruehauf	**1975** – Company, chairman, and vice president charged with criminal tax evasion. All convicted after trial.
GAF	**1974** – Fixing prices of dyes. Nolo plea.
GTE	**1977** – SEC charges relating to political contributions and payments to local officials. Consent decree.
General Dynamics	**1977** – SEC allegations of improper accounting to disguise political contributions. Consent decree.
General Host	**1972** – Fixing prices of bread. Nolo plea.
General Tire & Rubber	**1976** – SEC charges concerning slush fund and allegedly illegal political contributions. Consent decree.
Genesco	**1974** – Fixing prices of women's clothing. Nolo plea.
Gimbel Bros.[3]	**1974 & 1976** – Saks & Co. subsidiary charged with two cases of fixing prices of women's clothing. Company and executive pleaded nolo.
B.F. Goodrich	**1978** – Tax evasion related to slush fund used for illegal political contributions. Nolo plea by company; charges against an executive dropped.
Goodyear	**1973** – Illegal political contribution of $40,000. Company and chairman pleaded guilty. **1977** – SEC charges concerning slush fund of $500,000 for contributions. Consent decree.
Great Western United[4]	**1974** – Great Western Sugar subsidiary charged with fixing prices of refined sugar. Nolo plea.
Greyhound	**1974** – Illegal campaign contributions of $16,000. Guilty plea.
Gulf Oil	**1973** – Illegal political contributions of $100,000. Company and executive pleaded guilty. **1975** – SEC charges about $10-million slush fund used for political contributions. Consent decree. **1977** – Company and two employees charged with giving illegal gifts to an IRS agent. Company pleaded guilty, one employee pleaded nolo, the other convicted after trial. **1978** – Fixing prices of uranium. Pleaded guilty.
Gulf & Western	**1976** – Brown Co. subsidiary charged with fixing prices of folding cartons. Company and two executives pleaded nolo.
Hammermill Paper	**1978** – Palmer Paper Co. unit charged with fixing prices of paper products. Company and executive pleaded nolo.
Heublein	**1978** – Bribery of state liquor official. Guilty plea.
Hoerner Waldorf[5]	**1976** – Fixing prices of folding cartons. Company and four executives pleaded nolo. **1978** – Fixing prices of corrugated containers. Nolo plea.
ITT	**1972** – ITT Continental Baking subsidiary charged with fixing prices of bread. Nolo plea.
Inland Container[6]	**1978** – Fixing prices of corrugated containers. Nolo plea by company and executive.
International Paper	**1974** – Fixing prices of paper labels. Company and two executives pleaded nolo. **1976** – Fixing prices of folding cartons. Company and four executives pleaded nolo. **1978** – Fixing prices of corrugated containers. Nolo plea. Fined $617,000.
Walter Kidde	**1977** – SEC charges against U.S. Lines subsidiary[7] related to $2.5 million in allegedly illegal rebates. Consent decree. **1978** – Federal Maritime Commission charges related to same. Settlement. **1979** – U.S. Lines charged with fixing prices of ocean shipping. Nolo plea. Fined $1 million.
Koppers	**1979** – Bid rigging in connection with sale of road tar to State of Connecticut. Nolo plea.
LTV	**1978** – Agriculture Dept. charges against Wilson Foods subsidiary related to alleged illegal payoffs to customers. Settlement.
Liggett Group	**1978** – Paddington Corp. subsidiary charged with bribery of state liquor official. Guilty plea.
Litton Industries	**1974** – Fixing prices of paper labels. Convicted after trial.
3M	**1973** – Illegal campaign contribution of $30,000. Company and chairman pleaded guilty. **1975** – SEC charges related to $634,000 slush fund for contributions. Consent decree.
Marcor[8]	**1976** – Container Corp. subsidiary charged with fixing prices of folding cartons. Company and eight executives pleaded nolo. **1978** – Subsidiary charged with fixing prices of corrugated boxes. Company and two executives pleaded nolo.
Martin Marietta	**1978** – Martin Marietta Aluminum subsidiary charged with fixing prices of titanium products. Company and executive pleaded nolo.
Mattel	**1974** – SEC charges related to false disclosures to influence stock prices. Consent decree. **1978** – Former president indicted on criminal charges related to same matter. Nolo plea.
J. Ray McDermott	**1976** – SEC charges related to slush fund of more than $800,000 used for commercial bribes and illegal political contributions. Consent decree. **1978** – Wire fraud and racketeering charges relating to the bribes and contributions. Guilty plea. **1978** – Bid rigging and allocation of contracts relating to pipeline and offshore-oil-rig construction. Company, president, and three other executives pleaded nolo. Company fined $1 million.
Mead	**1976** – Fixing prices of folding cartons. Company and executive pleaded nolo.

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[2] Acquired by Louisiana-Pacific in 1978.
[3] Acquired by BAT Industries in 1973.
[4] Merged into Hunt Intl. Resources in 1978.
[5] Merged into Champion Intl. in 1977.
[6] Acquired by Time Inc. later in 1978.
[7] Acquired by McLean Securities in 1978.
[8] Acquired by Mobil in 1978.

COMPANY	OFFENSE
National Distillers	**1978** – Bribery of state liquor official. Pleaded guilty. **1980** – Treasury Dept. allegations of illegal payments to customers. Settlement and $750,000 fine.
Northern Natural Gas	**1972** – Mail fraud related to bribery of local officials to obtain right-of-way permits for pipeline construction. Company and one executive pleaded nolo to some counts; charges against another executive dropped.
Northrop	**1974** – Illegal campaign contributions of $150,000. Company and two executives pleaded guilty. **1975** – SEC charges related to slush fund for $500,000 in domestic contributions. Consent decree.
Occidental Petroleum	**1974** – Illegal campaign contribution of $54,000. Executive and later the chairman pleaded guilty. **1977** – SEC charges related to $200,000 slush fund for contributions in the U.S. and abroad. Consent decree.
Olinkraft[9]	**1978** – Fixing prices of corrugated containers. Company and one executive pleaded nolo; another executive acquitted.
Owens-Illinois	**1978** – Fixing prices of corrugated containers. Company and one executive pleaded nolo; two others acquitted.
Pan American	**1975** – Illegal fare cutting. Nolo plea. **1977** – Fixing prices of military fares. Nolo plea.
Peavey	**1977** – Defrauding grain customers by short-weighting. Nolo plea.
Penn Central	**1974** – SEC charges of fraud relating to the bankruptcy of the railroad. Consent decree.
PepsiCo	**1970** – Frito-Lay subsidiary charged with fixing prices of snack food. Nolo plea. **1977** – Parent company charged with fixing prices of industrial sugar. Nolo plea. **1979** – Parent company and two executives of Monsieur Henri subsidiary charged with bribing a union official. All pleaded guilty.
Pet[10]	**1970** – Fixing prices of snack foods. Nolo plea.
Phillips Petroleum	**1973** – Illegal campaign contribution of $100,000. Company and chairman pleaded guilty. **1975** – SEC charges related to $2.8-million slush fund, a portion of which was allegedly used for domestic illegal political contributions. Consent decree. **1975** – Fixing prices of gasoline. Nolo plea. **1976** – Tax evasion related to the slush fund. Guilty plea.
Pittston	**1977** – Brink's Inc. subsidiary charged with bid rigging and fixing prices of security services. Company and five executives pleaded nolo. Company fined $625,000.
H.K. Porter	**1974** – Fixing prices of steel reinforcing bars. Nolo plea.
Potlatch	**1976** – Fixing prices of folding cartons. Company and one executive pleaded nolo; another executive acquitted.
Purolator	**1978** – Bid rigging and allocation of markets for security services. Nolo plea.
Rapid-American	**1978** – Schenley subsidiary and three executives charged with bribery of a state liquor official. All pleaded guilty. **1979** – SEC charges against Schenley related to $6 million in allegedly illegal payments to customers. Consent decree.
Reichhold Chemicals	**1977** – Fixing prices of resins used to make paints. Company and executive pleaded nolo.
R.J. Reynolds Ind.	**1977** – Federal Maritime Commission charges against Sea-Land Services subsidiary relating to illegal payments to customers. Settlement and $4-million fine. **1978** – SEC suit against Sea-Land related to $25 million in allegedly illegal rebates and political contributions. Consent decree. **1979** – Fixing prices of ocean shipping. Nolo plea. Fined $1 million.
Rockwell International	**1978** – Fixing prices of gas meters. Pleaded guilty.
St. Regis Paper	**1976** – Fixing prices of folding cartons. Company and executive pleaded nolo.
F.&M. Schaefer	**1978** – Treasury Dept. allegations of $600,000 in illegal rebates to customers. Settlement.
Jos. Schlitz Brewing	**1977** – SEC charges related to $3 million in illegal rebates to customers. Consent decree. **1977** – Fixing prices of beer. Company and executive pleaded nolo. **1978** – Treasury Dept. allegations of illegal marketing practices and rebates. Consent decree and $750,000 fine.
Joseph E. Seagram	**1977** – SEC charges related to over $1 million in allegedly illegal rebates to customers and political contributions. Consent decree. **1978** – Seagram Distillers, three other subsidiaries, and four executives charged with bribery of a state liquor official. All pleaded guilty. **1979** – Illegal payments to members of a state liquor-control board. Guilty plea. Fined $1.5 million.
Seatrain Lines	**1978** – Payment of illegal rebates and violation of currency regulations. Guilty plea in criminal case and $2.5-million fine paid in Federal Maritime Commission case. **1979** – Fixing prices of ocean shipping. Nolo plea. **1980** – SEC suit related to $14 million in rebates to customers. Consent decree.
Singer	**1975** – Illegal campaign contribution of $10,000. Guilty plea.
SuCrest[11]	**1977** – Fixing prices of industrial sugar. Nolo plea.
Tenneco	**1976** – Packaging Corp. subsidiary charged with fixing prices of folding cartons. Company and four executives pleaded nolo. **1978** – Mail fraud in connection with bribery of a local official. Guilty plea.
Textron	**1978** – Fixing prices of gas meters. Pleaded guilty.
Time Inc.[12]	**1976** – Eastex Packaging subsidiary charged with fixing prices of folding cartons. Nolo plea.
Trans World Corp.	**1975** – TWA charged with illegal fare cutting. Nolo plea. **1977** – Fixing prices of military fares. Nolo plea.
Uniroyal	**1977** – SEC charges related to allegedly illegal political contributions. Consent decree.
United Brands	**1975** – SEC charges related to improper use of funds to pay a $1.2-million bribe to a Honduran official. Consent decree. **1978** – Wire fraud charges related to the same matter. Guilty plea.
U.S. Steel	**1973** – Fixing prices of steel reinforcing bars. Company and an executive pleaded nolo.
Jim Walter	**1978** – Knight Paper subsidiary charged with fixing prices of paper products. Company and executive pleaded nolo.
Ward Foods	**1972** – Fixing prices of bread. Nolo plea. **1978** – Fixing prices of meat. Nolo plea.
Weyerhaeuser	**1976** – Fixing prices of folding cartons. Company and three executives pleaded nolo. **1978** – Fixing prices of corrugated boxes. Company pleaded nolo, fined $632,000. Two executives acquitted.
Wheelabrator-Frye	**1976** – A. L. Garber subsidiary[13] charged with fixing prices of folding cartons. Nolo plea.
Zale	**1977** – SEC charges related to slush fund to reimburse executives for political contributions. Consent decree.

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[9] Acquired by Johns-Manville in 1979.

[10] Merged into IC Industries in 1978.

[11] Now named Ingredient Technology.

[12] Publisher of FORTUNE.

[13] Now an independent company.

"Where people are not lining their own pockets you can only explain corporate crime in terms of 'produce or perish.' "

however, he expressed dismay about how his statements would look in print. After all, some years had passed; the men were still living in the community; they had made their peace with the company. Would the same solicitude be accorded a bank robber?

The "bottom-line philosophy"

Corrupt practices are certainly not endemic to business, but they do seem endemic to certain situations and certain industries. A persuasive explanation for many violations is economic pressure—the "bottom-line philosophy," as Stanley Sporkin, the SEC's enforcement chief, puts it. "In many instances where people are not lining their own pockets you can only explain corporate crime in terms of 'produce or perish.' "

The common practice of running a company through decentralized profit centers, giving each manager his head but holding him strictly accountable for the results, often provides a setting in which the rules can readily be bent. The temptation comes when heightened competition or a recession squeezes margins.

The pressures that led to criminal behavior in the folding-carton industry were exhaustively described in a 1978 article in the *Harvard Business Review* by Jeffrey Sonnenfeld and Paul L. Lawrence. Price fixing had long been common in the industry because profit margins were tight, competition was intense, and prices were set at a relatively low level in the corporate hierarchy—a consequence of the many kinds and shapes of boxes ordered. Top management had little control over the impulses of salesmen and junior managers to exchange price information, rig bids, and divvy up customers.

The authors quote the self-exculpatory statement of one executive: "We're not vicious enemies in this industry, but rather people in similar binds. I've always thought of myself as an honorable citizen. We didn't do these things for our own behalf ... [but] for the betterment of the company."

In a similar vein, Irving S. Shapiro, Du Pont's chief executive, attributes antitrust violations to "weak companies" and "weak managements." For years, Shapiro had served as an antitrust lawyer at Du Pont, preaching the gospel of legal compliance to the managers down the line. But he had not long been installed as c.e.o. when the Justice Department, in 1974, hit the company with an indictment charging an antitrust conspiracy by Du Pont's dye group and several competitors.

The scheme began in 1970. Wanting to raise prices, Du Pont's dye people called on the competition and won agreement to a "follow the leader" scheme. The following January, Du Pont announced a 10% price increase; the competition followed suit in February and March. When brought to book, the nine companies involved all pleaded nolo and were fined between $35,000 and $50,000 each. Shapiro says he then laid down the law—he would countenance no further violations. Was the dye group a "weak"—that is, hard-pressed—division? Indeed yes, said Shapiro; he got rid of most of it last year at a loss of $64 million. (For a report on a more promising line of business at Du Pont, see page 92).

Rush to the courthouse

Once the Justice Department starts looking into a suspicious pricing pattern, it often has no difficulty making a case. Most price fixers are anything but hardened criminals. It is also true that antitrust enforcement in the U.S. is in general tougher than abroad. By convening a grand jury and sending out subpoenas Justice can touch off what one official calls "a rush to the courthouse" by executives eager to trade testimony for immunity.

Competitive pressures can account for kickbacks and other forms of commercial bribery, but perhaps equally significant are industry custom and structure. In trucking, in construction, and on the docks, the pressure of time seems to be the key element. If goods are delayed in transit, or if construction is held up because of the inability to obtain materials or workers, great financial loss can result. Where bribes are not freely offered, they are often extorted.

Companies in regulated industries sometimes violate the law because of the simple fact of regulation. In the beer and liquor industries, for example, both the federal government and the states prohibit or curtail some normal techniques of salesmanship, such as discounts and rebates. The result: illegal rebates and gifts of merchandise to persuade liquor retailers to promote a company's products.

A thumb on the scales

The great grain-elevator scandal of the mid-Seventies clearly resulted from conditions that were pervasive in the industry in the New Orleans area. Thirteen grain-trading companies, together with several score employees, were convicted of shortchanging customers. Continental Grain, for one, was fined $500,000 on 50 counts of filing false export statements. Employees at Continental's elevator at Westwego, Louisiana, had set their scales to register one-twentieth of 1% more than the true weight. The company's lame excuse was that the employees thought they were within their rights because the law required scales to be accurate only within a tolerance of one-tenth of 1%. True enough, but not when they were systematically rigged to shortchange customers.

Simple economic incentives explain much illegal behavior: corruption seems to pay, at least in the near term. In industries like folding cartons or corrugated boxes, where antitrust cases were brought, executives perceived an advantage in maintaining price levels, sharing the market, and keeping marginal firms alive. In such a situation, of course, the customers pay and the whole economy suffers from a measure of inefficiency. When a corporation is caught, the shamefaced executives take a drastically different view of the cost-benefit ratio. Some companies might have been better off in the long run if they had followed the alternative, and legal, strategy of expanding their market share by driving their weaker brethren to the wall.

continued

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Some have mounted vigorous compliance programs.

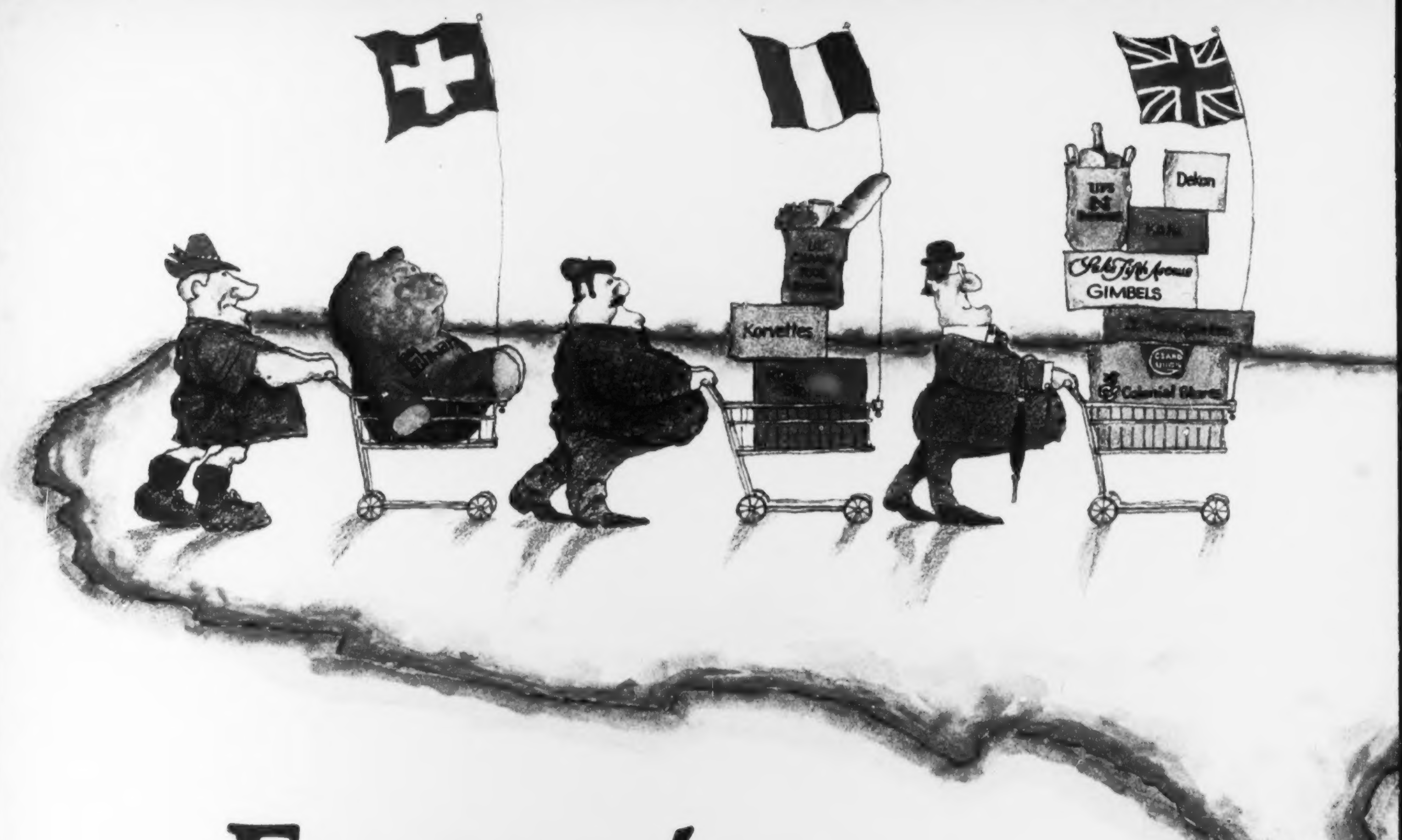
Except in cases hinging on illegal political contributions—once a way of life in many corporations and rarely investigated or prosecuted prior to Watergate—the chief executive is seldom personally implicated. Typically, even the executives running the guilty subsidiary or division disavow any knowledge of the wrongdoing below. Such was the situation at Bethlehem Steel, which in its public statement of contrition was careful to assert that top management—including the head of the shipbuilding division—had been ignorant of the kickback scheme.

Conspiracy of silence

Particularly when violations are persistent, however, it is hard to escape the cynical conclusion that if the line managers are ignorant, it is often because of an unspoken conspiracy of silence: the boss doesn't pry too vigorously, and his underlings get the impression that he would regard it as a betrayal if they volunteered too much.

A question that FORTUNE's compilation inevitably leaves unanswered is whether corporate corruption was on the increase in the last decade. More wrongdoing was exposed because of the crackdown in the aftermath of Watergate. But there are no data to allow comparisons over time about the extent of corporate lawlessness.

The publicity accorded the business scandals of the Seventies has given some impetus to reform. If the chief executive of a multibillion-dollar corporation cannot police every corner of his organization, he can establish an appropriate policing program and do much to set the right tone. A number of companies, including some sued for treble damages, have mounted vigorous compliance programs to instruct employees about the dangers of getting too chummy with competitors. But hard-pressed managers will probably still be weighing the risks of detection against the benefits of sharing markets and bribing purchasing agents. It sometimes seems that the only true believers in unfettered competition are professors of economics and business journalists. ■



Europe's U.S. Shopping Spree

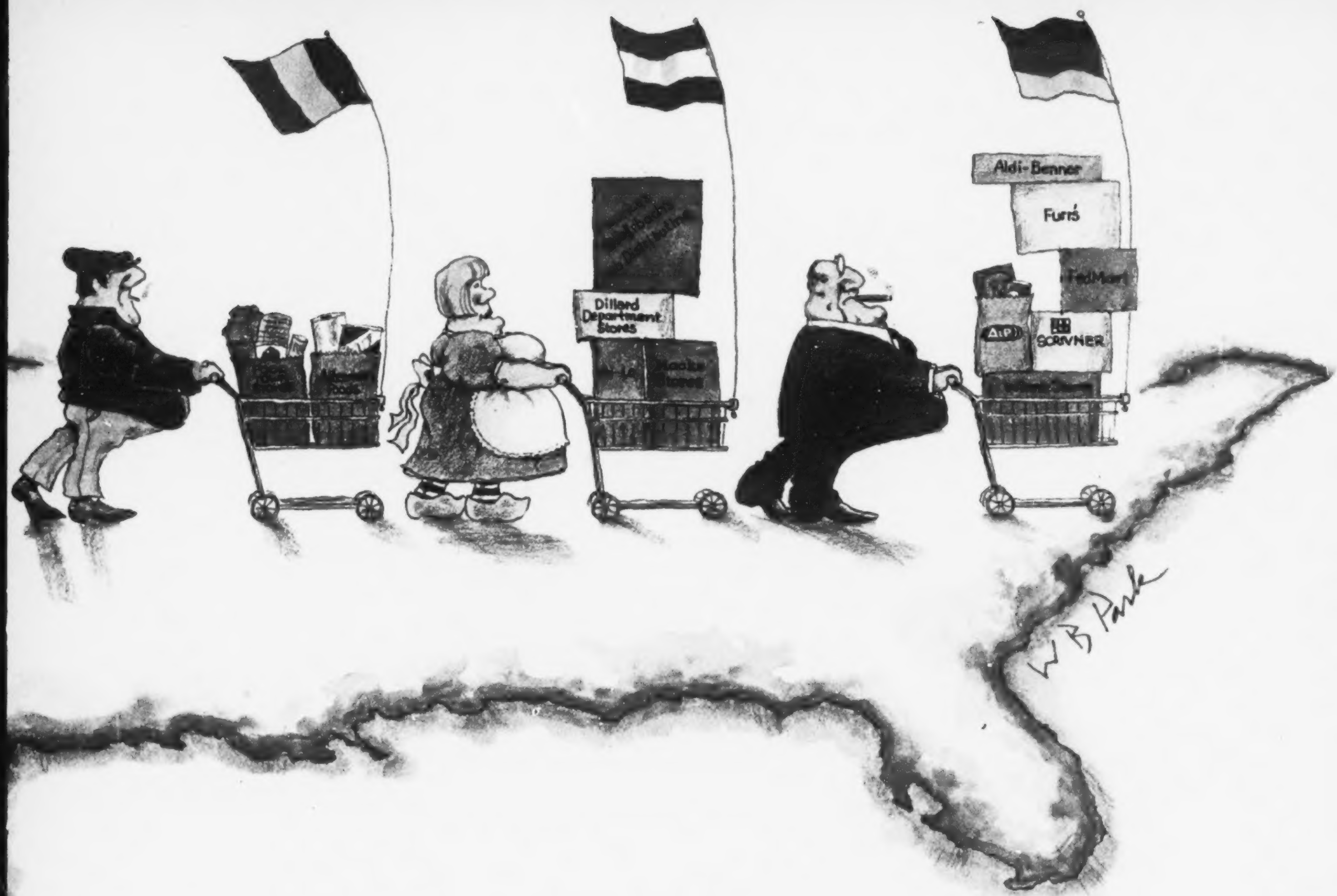
Success in retailing requires close touch with the local scene, tastes, and buying habits, which is one reason retailers have traditionally stayed on their native soil. Except for some of the fast-food franchisers, American merchants, unlike American industrialists, never really set up shop in Europe. Although America led the world to the supermarket, the U.S. pioneers of self-service shopping generally left it to foreigners to introduce the idea elsewhere. Even within Europe, cases of successful border-hopping by retailers are fairly rare.

Lately, however, Europeans have been descending in droves on the U.S. retailing landscape, buying up everything from high-fashion chains to low-margin discounters—right through the alphabet from A&P to F.A.O. Schwarz. Strictly speaking, it all started in 1962 when members of the Brenninkmeyer family—a wealthy Dutch retailing clan with low-priced clothing stores blanketing northern Europe—bought Ohrbachs, the New York apparel store. After that, there was a ten-year lull, broken in the early Seventies by the acquisition of Gimbel Brothers, owners of Saks Fifth Avenue as well as Macy's rival, by British-American Tobacco Co. (now called BAT Industries). Since then, the pace of takeovers has quickened and retailers all over the country have fallen into European hands (see the table on page 85). Over 10% of the U.S. grocery business is now owned by Europeans, including two of the top ten supermarket chains, A&P and Grand Union.

Research associate: Lisa Miller Mesdag

Though virtually unknown on the western shore of the Atlantic, the newcomers include some of the biggest guns in European retailing. A&P's owner, Tengelmann Group, is a supermarket king in West Germany. Hugo Mann, who now owns most of Fedmart, is founder of a chain of huge discount stores in Germany selling food and other merchandise (see the box on page 88). The Netherlands' two largest retail chains—Vroom & Dreesmann and Ahold—have bought, respectively, department stores in Little Rock and food stores in South Carolina. Delhaize in Belgium, Agache-Willot in France, and Cavenham in Britain—household words on their home turf—are among the other big European invaders.

Some of the new arrivals are newcomers to retailing as well. BAT, Britain's fourth-largest company, moved into retailing on



The companies buying up American retail chains haven't always fared well, but they keep coming.

by ROBERT BALL

both sides of the Atlantic to reduce its dependence on cigarette sales. Franz Haniel, a Ruhr-based shipping company and wholesaler of coal and fuel oil, had no retailing interests at home when it bought Scrivner, a grocery-store chain headquartered in Oklahoma City. Nor did Heinrich Bauer Verlag, one of Germany's major magazine publishers, which bought a variety-store chain called Winn's, based in San Antonio.

The results achieved by these motley combinations have been mixed, ranging from quiet prosperity through more or less successful turnarounds to at least one out-and-out horror story. In general, the main contribution of the European companies to their new American subsidiaries has been financial—the injection of capital. It follows that the best results have occurred where money was the main thing lacking—in other words, where the U.S. companies were profitable and had good management but needed cash to expand.

A Wood that could

The rule is that American management works best. There is, however, one outstanding exception in James Wood. He was brought over from Cavenham, the British supermarket group, to run Grand Union. The East Coast grocery chain was not a sparkling performer when Sir James Goldsmith made it Cavenham's beachhead in the U.S. in 1973. Wood's prescription sounded like a nostrum—ax unprofitable stores, change the merchandise mix, tighten financial reporting—but it proved a sovereign remedy. Grand Union's profits rose tenfold in the six years he was in charge, and the company has bought two more supermarket chains, Colonial Stores and J. Weingarten, positioning Cavenham along the whole coastal arc from New England to the Mexican border. Today Cavenham's U.S. sales are twice as big as its sales at home.

Wood was recently lured away to A&P by the German group that now controls the old tea company. Erivan Haub, 48, sole owner of Tengelmann, hopes Wood can still work magic (see "A&P Calls in a Reliever," FORTUNE, June 2). Haub vacations with his family every year in Tacoma, and having trained in the Fifties with Jewel and a California grocery chain called Alpha-Beta, he knew the U.S. retailing scene better than many Europeans. But while he now has well over $100 million riding on A&P's fate, Haub admits

A Mixed Bag of Two Dozen Takeovers

Whether they know it or not, shoppers from California to the Carolinas are buying from Europeans these days. This list, compiled from public reports of major investments in U.S. retailers by Europeans, shows that six of the domestic companies they bought into, including A&P (No. 1), are losing money. But Cavenham has done well with Grand Union (No. 2) and the Belgian company that invested $27 million in Food Town (No. 11) now holds stock with a market value of about $100 million.

its problems were more serious than he realized when he bought in.

All the surprises for the Delhaize Group, on the other hand, have been good ones. A family-dominated concern that runs the Le Lion chain of grocery stores in Belgium, Delhaize now owns the lion's share of a remarkable supermarket operation headquartered in Salisbury, North Carolina. Delhaize has invested $27 million in Food Town Stores but hasn't meddled with the way tarheel founder Ralph Ketner runs the business. When the Belgians met Ketner in 1974, Food Town's sales were $93 million. Since then Ketner has moved into South Carolina and Virginia, and sales are running at more than $500 million. Though virtually unknown outside the three-state area, Food Town has been a bonanza for its shareholders, including Delhaize, which now owns 52% of the company. Based on recent stock prices, in fact, Food Town's market value is 27% greater than that of A&P—$190 million vs. $150 million.

A plethora of pianos

The Europeans have had fewer successes in non-food retailing. Like Tengelmann, BAT underestimated an ailing company's problems when it bought Gimbel Brothers, but it has stuck with American managers. Before the 1973 takeover, profits from Saks were covering losses at Gimbels, which had been allowed to sink into lethargy. ("They had a whole floor full of pianos, as I recall," says BAT Chairman Peter Macadam, wonderingly.) Only now, after seven years of hard slog and the injection of large sums for modernization, is Gimbels beginning to turn the corner. BAT's chairman admits it "still has problems." Saks, on the other hand, has continued to do very well.

Changes in management and uncertainty about which slice of the market it was aiming at have characterized Ohrbachs under the ownership of the Brenninkmeyers. When the family took it over, Ohrbachs had a certain cachet as a fashion-conscious retailer selling quick copies of the latest Paris styles. In 18 years of sailing under the Brenninkmeyer flag, it has lost that cachet without acquiring any new identity. Over the last decade it has had three different managers—two Americans and now a member of the Brenninkmeyer family—and today is probably only marginally profitable. But indifferent success with Ohrbachs has not discouraged the Brenninkmeyers from seeking new outlets in the U.S. A 1977 attempt to take over Miller-Wohl, an East Coast apparel chain, fell through, but two years ago Brenninkmeyer made a successful bid for Maurices, a Minnesota-based clothing chain.

The worst European debacle has been Korvettes. Less than two years after buying in, Agache-Willot is preparing to close or sell the last 30 survivors of what was once a thriving 50-store operation. The French company, controlled and run by four Willot brothers, went on a spree in the Seventies, acquiring such Paris retailing landmarks as the Au Bon Marché department store and the Christian Dior fashion and perfume business. But nothing prepared the Willots for Korvettes.

They thought they were getting a bargain when they bought the company for $31 million. Korvettes' parent, Arlen Realty, was in trouble and needed the cash, and Korvettes was losing money too. A Frenchman, Alain Mathieu, was sent to New York to stanch the flow of red ink. When he failed in that mission, he was replaced by Joseph Ris, former vice president of Chrysler International. Young Jean-Pierre Willot Jr., whose American experience was limited to studies at Cornell, was put at Ris's elbow.

As late as this June, Ris was still exhorting employees to help him pull the company through. But despite drastic surgery, Korvettes' debts to suppliers were nearly $30 million, and those to lending institutions had reached $55 million. In August, when a debt-restructuring plan Ris worked out with the lenders was disavowed by his French employers, he resigned, but was quickly reinstated after the banks retaliated by seizing Korvettes' deposits. Subsequently, Ris has turned Korvettes' inventory over to a liquidator, which will use the proceeds from the rummage sale to pay some of the chain's bills. The other $55 million in debt is to be settled by the Willots at less than 50 cents on the dollar.

Lesson for Mothercare

As the Korvettes experience suggests, the Europeans' advance staff work has often been surprisingly lax. And some of the U.S. investment bankers and merger brokers who offered their services proved better at ferreting out acquisition candidates than at giving sound advice. Sir James Goldsmith of Cavenham, one European who has prospered, credits "an element of luck." Though he spent several months in the U.S. and had the help of the late great André Meyer of Lazard Frères, Goldsmith confesses that he was still "relatively ignorant" about American retailing when he bought Grand Union.

This plaint is echoed by other European investors who were less lucky than Sir James. "Because we knew the cigarette business," says Chairman Macadam of BAT, "we thought we knew all about selling consumer goods in vast quantities. We discovered retailing is very different." An executive of Mothercare Ltd., the successful British maternity and children's wear group whose U.S. operation has been losing money, admits, "We got the merchandise wrong. We simply assumed that goods which sold well in Europe would also sell in the States. That turned out not to be true."

Despite their growing presence, the Europeans haven't "Europeanized" U.S. retailing, and major innovations that bear their stamp are hard to name. That is not altogether surprising since trends in retailing are similar on either side of the Atlantic. In both parts of the world, the self-service sector is expanding at the expense of stores with salesclerks, and the range of goods offered in self-service outlets is constantly growing. The Europeans, however, did lead the development of "box stores"—grocery outlets that typically carry only a few hundred basic

continued

■ Grocery Stores

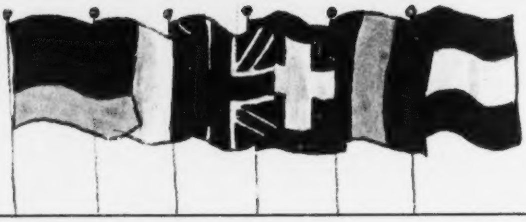
■ Department Stores

■ Discount Stores

■ Clothing Stores

■ Variety Stores

■ Toy Stores



		U.S. retailer Headquarters	Annual sales[1] (millions)	Profitable?	European acquirer Country	Annual sales[1] (millions)	Main business	Details of acquisition Initial investment made	Total investment (millions)	Percent owned
1	■	**A&P** Montvale, N.J.	$6,684	No	**Tengelmann Group** Germany	$3,576	■	1979	$115	48%
2	■	**Grand Union** Elmwood Park, N.J.	$3,138	Yes	**Cavenham** Great Britain	$5,062	■	1973	$130	100%
3	■	**Colonial Stores** Elmwood Park, N.J.	Now a division of Grand Union					1978	$139	100%
4	■	**J. Weingarten** Houston	$567	Yes				1980	$27	100%
5	■	**Gimbel Brothers** New York City	$1,190	Yes	**BAT Industries** Great Britain	$15,645	Tobacco	1973	$200	100%
6	■	**Kohl** Milwaukee	$400	Yes				1972	$90	100%
7	■	**Fedmart** San Diego	$1,061	No	**Mann GmbH** Germany	$2,076	■	1975	$90	88%
8	■	**Bi-LO** Mauldin, S.C.	$547	Yes	**Ahold NV** Netherlands	$2,761	■	1977	$60	100%
9	■	**Scrivner** Oklahoma City	$547	Yes	**Franz Haniel** Germany	$2,076	Fuel & shipping	1977	$27	100%
10	■	**Alterman Foods** Atlanta	$495	Yes	**Delhaize "Le Lion"** Belgium	$1,537	■	1980	$36	100%
11	■	**Food Town Stores** Salisbury, N.C.	$416	Yes				1974	$27	52%
12	■	**Furr's** Lubbock, Tex.	$450*	No	**RHG-Leibbrand** Germany	$2,768	■	1979	$24	100%
13	■	**Korvettes** New York City	$400*	No	**Agache-Willot** France	$3,175	Textiles	1979	$67	100%
14	■	**Dillard Dept. Stores** Little Rock	$391	Yes	**Vroom & Dreesmann** Netherlands	$3,386	■■	1978	$35	52%
15	■	**Red Food Stores** Chattanooga, Tenn.	$265*	Yes	**Promodes** France	$2,240	■	1980	$36	100%
16	■	**Ohrbachs** New York City	N.A.	Yes	**Brenninkmeyer family** Netherlands	$5,190*	■	1962	N.A.	100%
17	■	**Maurices** Duluth, Minn.	N.A.	Yes				1978	N.A.	100%
18	■	**Hub Distributing** Ontario, Calif.	N.A.	Yes				1980	N.A.	100%
19	■	**Winn's Stores** San Antonio	$70	Yes	**Heinrich Bauer Verlag** Germany	$779	Magazine publishing	1979	$50	100%
20	■	**Macks Stores** Sanford, N.C.	$62	Yes	**Koninklijke Bijenkorf Beheer** Netherlands	$1,302	■	1980	$15	100%
21	■	**Ups 'n Downs** Secaucus, N.J.	$58	No	**Tootal** Great Britain	$858	Textiles	1979	$19	100%
22	■	**Lil' Champ Food Stores** Jacksonville	$31	Yes	**Docks de France** France	$2,683	■	1978	$3	35%
23	■	**Dekon** New York City	$28	No	**Mothercare** Great Britain	$352	■	1976	$1	100%
24	■	**F.A.O. Schwarz** New York City	$15	Yes	**Franz Carl Weber** Switzerland	$125	■	1974	$3	95%

N.A. Not available. *FORTUNE estimate. [1]Latest fiscal year. Foreign currencies have been converted to dollars using the average exchange rate in the official market during the fiscal year.

Fedmart Is an Armful for Hugo Mann

Ever since he was a boy growing up in southern Germany, Hugo Mann, 67, has been fascinated by the wide-open spaces of America. As a P.O.W. in Russia, he learned English from a fellow prisoner, scratching the words onto pieces of birch bark. By 1957, seven years after he reopened the family furniture store on a bombed-out site in Karlsruhe, Mann had saved enough money to tour his promised land. He returned convinced that he had seen the future, that it was self-service retailing, and that it worked.

It certainly worked for Mann. His Wertkauf chain, inspired by his observations in the U.S., has grown into a billion-dollar-a-year business in Germany. The stores, huge "hypermarkets" that sell both groceries and a broad line of other items, are also hugely efficient. Thanks to the marvels of electronic inventory controls, Mann operates without a single warehouse or truck. Store managers order merchandise as needed, and suppliers deliver it right to the door, price-marked and ready for the shelves. Mann reckons this system saves him 4% to 5% on costs.

In the early Seventies, Mann's interest in U.S. retailing, refreshed by annual visits, ripened into a decision to invest. After looking long and hard, he settled in 1975 on San Diego-based Fedmart. Like Mann's German operations, Fedmart sold both food and other merchandise, a rare combination in the U.S. Mann also liked Fedmart's Sunbelt location. After tough negotiations, he paid $27 million for 64% of the stock. "We knew it was run-down," he says, "but we thought it was not too big to get our arms around." Sales were running about $300 million.

Mann at his San Diego store this fall

Mann had seen many but not all of Fedmart's 30-odd stores before he made his bid; he soon discovered why no one had put the others on his itinerary. Too many small Fedmarts were strewn too thinly across the Southwest. Outlets in Dallas and Houston were being supplied from warehouses on the Pacific Coast. Mann reasoned that to be economically sound, Fedmart would need more and bigger stores. That meant spending more money.

Having decided buying was cheaper than building, in 1978 Mann purchased the West Coast operations of Vornado—22 Two Guys discount stores—and began converting them to Fedmarts. (The Two Guys stores on the East Coast still belong to Vornado.) He also bought ten Globe Stores in the Southwest from Walgreen. And both times he inspected all the stores before he closed the deal. Mann's determination to make a go of Fedmart was stiffened by strict new building restrictions in Germany affecting construction of giant supermarkets. "I concluded that if we couldn't build anything more in Germany, we would have to turn to the U.S.," he says.

Mann has by now invested some $90 million in Fedmart, and in the process has acquired 88% of the stock. He can afford the outlay. He is sole owner of the German company, and while its profits have never been disclosed, FORTUNE estimates them at over $25 million a year.

Yet the Fedmart experience has required nerves as strong as Mann's bank balance. The company lost $11 million in fiscal 1979 when the integration costs of the Two Guys and Globe stores hit the accounts, and it has just reported a $6.3-million loss for the year ending August 31. Although Fedmart's sales have just topped $1 billion, the stock has dropped from $19 to around $9 in the last 20 months.

Mann is nonetheless forecasting a profit in fiscal 1981, and his zest for American adventure is undiminished despite the grim results to date. "I'd do it again tomorrow," he insists. And, with a glance over his shoulder at what he sees as a climate of "cold confiscation" in Europe, he adds, "America is the land of enterprise. If the time ever comes when I can't go on in Germany, I'll just buy a ticket to the U.S."

items, displayed in the boxes they are shipped in, and little or no fresh produce. Such shops account for only 2% of U.S. food sales at present. But Tengelmann is banking heavily on them as part of its recovery plan for A&P. It has already opened 63 under the name Plus, and plans to open at least 30 more before next spring.

Cure for claustrophobia

Given that the U.S. has proved less than an El Dorado—few even of the successful Europeans are yet taking out any dividends—why the continuing rush across the Atlantic? The chief factor is simply a sort of corporate claustrophobia: the bigger European retail chains are bumping up against the limits on profitable growth at home. The U.S., despite tough competition and margins generally lower than those in Europe, has compelling attractions. Aside from a larger market, these include less union pressure, fewer government-imposed fringe benefits, access to the latest advances in inventory and checkout systems, and a climate they view as favorable to business and investment. Europeans also prize the real estate that comes with ownership of a retail chain.

For the many family-controlled retailing companies, there is the additional lure of acquiring assets at a safe distance from the Russians and out of reach of "creeping socialism." Even though his acquisition of Colonial Stores is still being raked over by the FTC, Sir James Goldsmith says with the fervor of a born-again entrepreneur, "We believe in America." Gui de Vaucleroy, a director of Delhaize, the Belgian company that struck pay dirt in North Carolina, asserts: "The U.S. is the last bastion of capitalism."

These sentiments may not exactly warm the hearts of U.S. retailers, whose business has been competitive enough without the infusion of new capital. Soon other European companies, like Sir James's, will be selling more in the U.S. than at home. Many of those already here are looking for more acquisitions; others plan an explosive expansion. Mothercare Ltd., for example, wants to have 1,000 outlets in the U.S. in 15 years, up from less than 200 today. BAT talks of hundreds of its new women's sportswear stores called Thimbles. And there are still many well-heeled companies in the wings awaiting their cue. Watch for Continental touches at your friendly neighborhood store. ◼

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BIG STEEL RECASTS ITSELF

In Ed Gallucci's cover photograph, a question mark replaces the second "S" in U.S. Steel's famous logo, rendered for FORTUNE by Nicholas Fasciano. A story on the Pittsburgh behemoth's new emphasis on its non-steel businesses begins on page 28.

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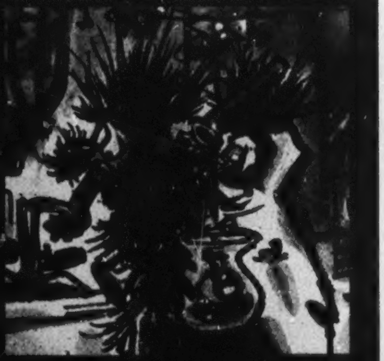

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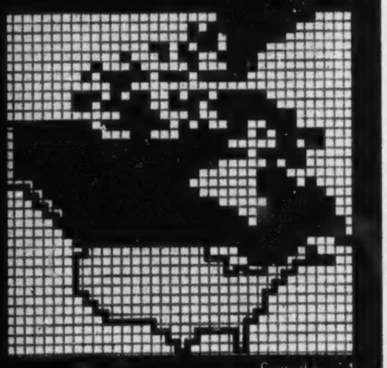

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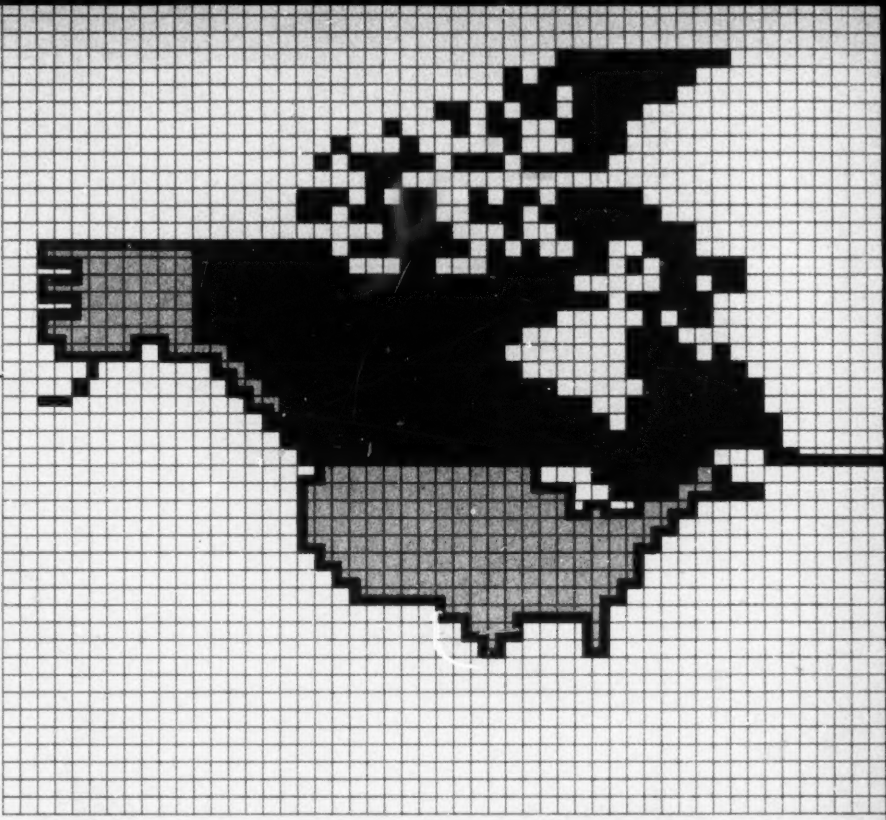

The investment climate for foreign companies in Canada, already frigid in the energy industry, is now getting chilly across the board.

Trudeau's War

by HERBERT E. MEYER

President Reagan's visit to Ottawa last week served to remind us that the U.S. and Canada disagree about quite a lot these days. The news from Ottawa suggested, however, that one extremely sensitive subject—the future of U.S.-owned companies in Canada—was scarcely touched upon. In the long run, that subject is apt to prove more divisive than the widely publicized disagreements about El Salvador, acid rain, and fishing rights.

The heart of the matter is the course of economic nationalism on which Pierre Trudeau, Canada's mercurial Prime Minister, is again embarked. U.S.-owned energy companies have already come under attack by Ottawa, in the form of an energy program designed to reduce foreign ownership of this industry from 70% to 50%. But it seems increasingly probable that Trudeau's policies will force out U.S. companies in many other industries.

Among the measures contemplated:

- Continued use of Petro-Canada, the government-owned oil company, to buy up foreign-owned energy companies. In February Petro-Can agreed to pay $1.2 billion for the Canadian subsidiary of Belgium's Petrofina.
- Expanded use of Canada Development Corporation (CDC), which is 49% government-owned, to buy foreign-owned companies in non-energy fields.
- Expanded use of the Foreign Investment Review Act (FIRA). For example, the Foreign Investment Review Agency, which enforces the act, may begin conducting "performance evaluations" of foreign-owned companies to determine whether they are good corporate citizens; companies that flunk will be invited to mend their ways or sell out.
- Rigid enforcement, and possible expansion, of the so-called Gillespie Guidelines. Named after the cabinet minister who formulated them in 1975—and virtually ignored by Ottawa up to now—these 14 "Principles of International Business Conduct" outline a code of behavior that foreign-owned companies should follow if they wish to be viewed as good corporate citizens. Among other things, the guidelines urge foreign-owned companies to conduct R&D in Canada and to secure from their home offices "world mandates"—assignments to be sole suppliers of certain products, with authority to export from Canada.
- Expansion of the Enterprise Development Program to help Canadian companies purchase foreign-owned assets in Canada, by guaranteeing private loans made for this purpose.

Better than Iran

In a recent interview with FORTUNE, the government official most concerned with these measures professed to see no reason why U.S. and other foreign executives should be troubled by them. "Canada will remain an attractive place to do business," insisted Herb Gray, Minister of Industry, Trade, and Commerce. Clearly, the minister shares a feeling, widely held among Ottawa bureaucrats, that for too long foreign investors have been enjoying a free ride—that the investment climate for foreign-owned companies has been so congenial that Ottawa can lower the temperature by quite a few degrees without

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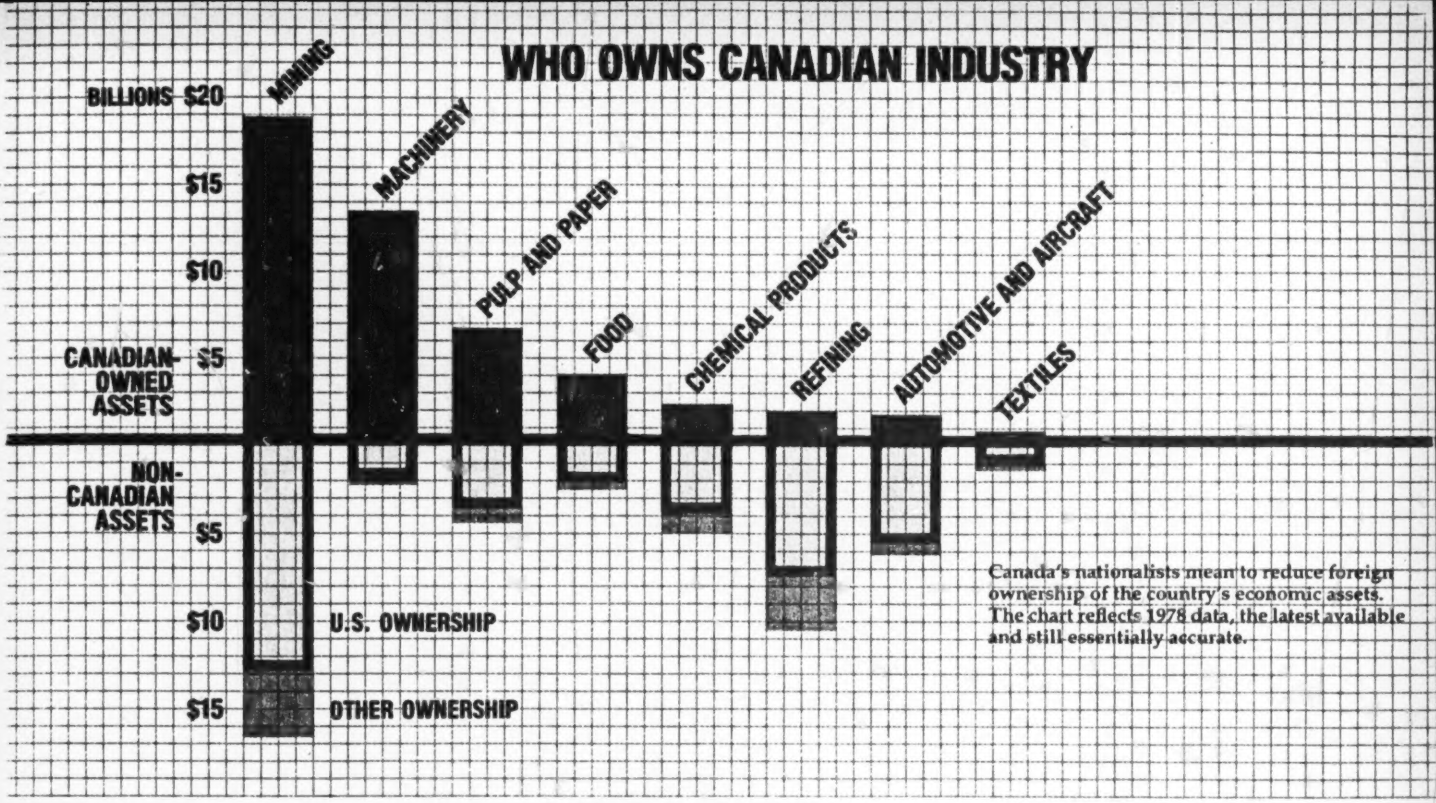
Research associate: Anna Cifelli



Canada's nationalists mean to reduce foreign ownership of the country's economic assets. The chart reflects 1978 data, the latest available and still essentially accurate.

on U.S. Business

risk of a massive corporate flight. Asked whether the measures under consideration might make Canada a less attractive country in which to invest, Gray retorted, with heavy sarcasm: "Compared to what? Iran?"

The American business community hasn't yet reacted to the latest wave of Canadian nationalism, apparently preferring to reserve judgment until the anti-foreign provisions of the new energy program actually are extended to other industries. According to Alexander C. Tomlinson, chairman of First Boston Corp.'s executive committee, "People are waiting for the other shoe to drop." Some don't think it ever will drop. Says Lawrence A. Fox, vice president for international economic affairs of the National Association of Manufacturers: "You may find some people with taut nerves about this. But I'm inclined to scoff a bit. There is nationalist talk in Canada all the time, but U.S. companies will stay there. They can't come home—they're there." Besides, Fox observes, Canadians can't afford to buy out all those companies.

This sanguine view is shared by David L. McInnes, Canadian-born president of Weyerhaeuser Canada. "You have to respond to the actualities," McInnes comments. "We Canadians are great savers but we are not a rich country and you can't wave a wand to raise capital. So for pragmatic reasons I think risks to the industrial sector are minimal."

The bad news for $1,800

But there is also a growing sense that the environment for American business in Canada could be a lot less agreeable in the future. In January a New York-based research and consulting firm, Multinational Strategies Inc., published a 156-page report on the long-term business environment in Canada. Within two weeks, 20 companies, including IBM, Dow Chemical, and Alcoa, plunked down $1,800 each for copies of the report. It noted Canada's need for foreign investment, yet anticipated increased pressure on foreign companies.

Said the report: "Complexity and uncertainty will increase ... because of the determination of Canadians to control a larger share of their national economy. For the first time in key economic sectors, there is now a real Canadian alternative to foreign control. We feel that foreign companies can expect to see a much closer alliance between governments in Canada (at both the federal and provincial level) and local entrepreneurs, in an effort to expand Canadian control." The report added that foreign companies could look forward to "a more interventionist business environment," and that the government could be expected "to enlarge the area of uncertainty ... by forcing firms to bargain for desired benefits or permissions."

Stephen Blank, one of the report's authors, points out that the business climate in Canada could be a bit dicey in coming years even without a new wave of nationalism. In Blank's view, the current domestic struggles between Ottawa and the provinces over such issues as the constitution and control of natural resources would themselves be sufficient to make things tough for foreign-owned

Daniel Wiener

Pierre Trudeau sometimes says he's not an economic nationalist, but he chose Herb Gray (left), a nationalist hero, as industry minister.

companies. The new nationalism will make a difficult situation worse.

Canadian nationalism is rooted in the fact that the country has for decades been heavily influenced by foreign, mostly U.S., companies. Roughly a century ago, when Ottawa built a tariff wall to protect its fledgling industries, U.S. companies began to set up branch plants in Canada to serve the local market. Before long, many of these subsidiaries had joined the ranks of Canada's largest companies. The tariff wall has largely crumbled now, but the old pattern has remained. In no major industrialized country do foreign-owned companies play so large a role. Today, in addition to their majority ownership of the oil industry, U.S. companies own 32% of the pulp and paper industry, 36% of the mining and smelting industry, 39% of manufacturing as a whole. Of the 100 largest companies in Canada, 37 are U.S. owned or controlled. The foreign-ownership data are even more striking when such non-U.S. companies as Royal Dutch/Shell and Unilever are included.

It's the foreigners' fault

Back in 1971 Herb Gray, then one of Trudeau's junior ministers, wrote a paper that was to become gospel for the budding economic-nationalist movement. The Gray Report, as this document came to be known, attributed Canada's economic plight largely to the extensive foreign ownership of its industries. Canada had a "branch-plant economy," Gray maintained, whose characteristics included stunted technological development and low levels of R&D. Gray argued that foreign-owned companies simply did not provide their host countries with benefits equal to those provided by indigenous companies. Solution: increased Canadian control of the country's economic assets.

Trudeau himself was always sympathetic to such arguments. In 1971 he created the Canada Development Corporation. In 1974 he created the Foreign Investment Review Agency, which began screening applications by foreign investors to purchase Canadian companies; in a few celebrated cases, FIRA forced U.S. companies with Canadian subsidiaries to sell them to Canadian investors. And Trudeau announced his "Third Option"—a foreign policy designed explicitly to loosen U.S.-Canadian ties.

Then, in 1980, Trudeau used the appeal of economic nationalism in his successful campaign to oust Prime Minister Joe Clark (who had been in office only six months). On February 12, 1980, Trudeau delivered an extraordinary speech to the Toronto Advertising and Sales Club in which he spelled out his views on foreign investment. Unlike many campaign speeches, this one offered startling and specific details. Said the once and future Prime Minister: "In a mature economy like Canada's there are opportunities to repatriate foreign ownership of Canadian assets. Within this framework, the Foreign Investment Review Agency can have an important role to play. We want to expand and strengthen FIRA, not weaken it. FIRA's mandate will be broadened to include the periodic review of all foreign firms of large size to assess the performance of these companies in such areas as export promotion and research and development. Most importantly through government guarantees of bank loans, FIRA will help provide financial assistance to Canadian companies that want to compete for foreign takeovers or repatriate foreign ownership of assets."

Any doubts that Trudeau meant what he said were laid to rest after his big victory, when he named Herb Gray to the crucial post of industry minister. The P.M. could scarcely have sent a stronger signal. Gray says that his mandate is to turn Trudeau's Toronto speech into policy and that specific measures will be announced as the cabinet approves them, a process that will stretch out over the next two years or so.

The recent sequence of events in the oil industry suggests a pattern the government might be following elsewhere. First, Ottawa swung a sledgehammer by announcing an energy policy harsher than anyone had anticipated. Among its provisions: Ottawa gets an automatic 25% share of any oil or gas found on federal property—which is where most new strikes are likely to be made; and new leases to explore on federal land will be given only to companies that are at least 50% Canadian owned. Result: a sharp plunge in the stock prices of foreign-owned oil companies traded in Canada.

Having knocked down the value of foreign-owned oil companies and effectively crushed whatever exploration plans they might have had, Ottawa launched Petro-Can on a buying spree. Petro-Can was the country's 12th-largest oil company be-

Petro-Can may soon be the No. 1 oil company.

fore its Petrofina takeover; now it's No. 5. And Petro-Can may soon be No. 1: Canada's energy minister, Marc Lalonde, said even before the Petrofina takeover that within a year Petro-Can would buy one to three foreign-owned oil companies.

Ottawa has also moved to give Canadian companies a big share of the offshore drilling-rig market. One provision of the new Canada Oil and Gas Act now before Parliament requires foreign-owned companies seeking exploration licenses to submit plans to the government that, among other things, spell out how the company intends to make "maximum use" of Canadian goods, services, and labor. Andrew A. McArthur, president of Saint John Shipbuilding & Drydock Co. in New Brunswick, says his company may be among those moving to take advantage of Ottawa's new approach by starting to build rigs. As McArthur explains it: "We have strong indications that oil companies are being told that the higher the Canadian content of their proposals, the more kindly they will be treated in Ottawa."

Muscling in on IBM

The office-equipment industry has long had the sense that it is on Trudeau's hit list. Ottawa has already made clear that it considers the development of a domestic office-equipment industry crucial to the country's future. Last year Ottawa announced plans to issue $55 million in research grants to some of the young Canadian firms—for instance, Mitel Corp., an Ottawa-based producer of telephone switching devices—that have managed to establish footholds in this fast-moving industry. According to Gray, the government will now use its powers of procurement to encourage all public agencies—which account for about 25% of the country's $2.2-billion market—to buy Canadian equipment, or whatever alternative equipment includes the highest percentage of Canadian-produced components. It is not yet clear how these measures will affect IBM, Xerox, and other U.S. companies with Canadian subsidiaries.

So far, the only organized American op-

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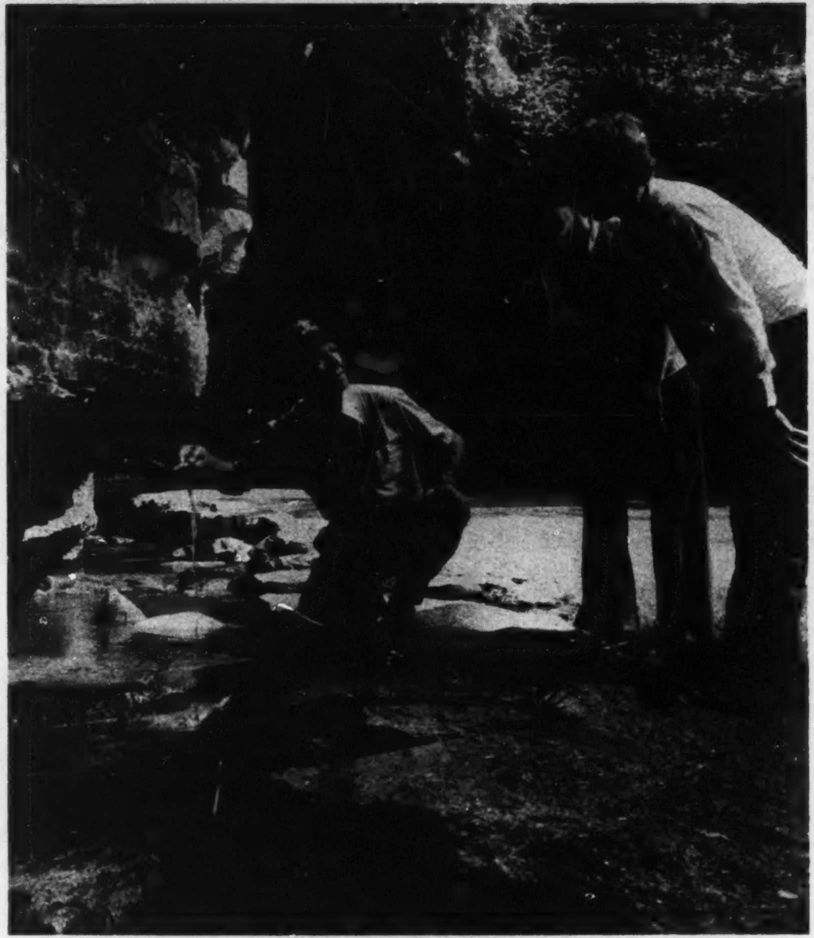

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"We rate ourselves good on 13 of the 14 guidelines."

position to Canada's new nationalism has come from Washington. U.S. trade and diplomatic officials are loudly protesting the procurement provisions of the pending oil and gas legislation—even threatening to charge Canada formally with violating the "national-treatment" provisions of the General Agreement on Tariffs and Trade (GATT).

Touting the local content

Up in Canada, meanwhile, many executives of U.S.-owned companies have been working to build the case that they've been good Canadian citizens. Peter M. Brophey, vice president of Xerox Canada, says that he's been carefully monitoring his company's compliance with the Gillespie Guidelines. Reports a happy Brophey: "We rate ourselves as good—on a scale of good, fair, and poor—on 13 of the 14 guidelines." (The one low rating relates to the rule urging foreign-owned companies to make shares available to Canadian investors; like a lot of foreign-owned companies, Xerox Canada is a wholly owned subsidiary.) Like other U.S.-owned companies in Canada, Xerox has tried to win public favor by touting the high local content of its products.

Lorne K. Lodge, chairman and president of IBM Canada, reports with satisfaction that his company relies on more than 7,000 Canadian companies to supply materials. Lodge, a Canadian citizen, adds that the company has been especially careful to hire and promote Canadians. But because of the way IBM Corp. is structured, he adds, his unit has no world mandates. James M. Hay, chief executive of Dow Chemical of Canada, contends that his company didn't have a problem with the guidelines when they came out in 1975 and doesn't have a problem with them now. Whether Herb Gray and his people agree remains, of course, to be seen.

Some U.S. companies could doubtless challenge the basic idea behind Canada's economic nationalism—the idea that foreign-owned companies have done little to promote advanced technology in Canada. In fact, Pratt & Whitney's Canadian

continued

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The departure of Herb Gray might slow the drive.

unit is that company's sole worldwide supplier of jet engines for small planes. General Electric's Canadian unit is that company's sole producer of certain types of paper-making machinery and hydraulic turbines. Xerox products sold around the world include document-input devices made exclusively by the company's Canadian unit.

Where to find researchers

The recent performance of foreign-owned companies is even more striking in the all-important field of R&D. According to Statistics Canada, Ottawa's official numbers compiler, foreign-owned companies accounted for a remarkable 44% of all industrial research and development done in Canada in 1979 (the latest year for which figures are available). Since quite a few U.S.-owned companies are in autos, rubber products, and other industries that have low R&D expenditures, it follows that many other U.S.-owned companies are more than pulling their weight. In any case, companies these days tend to build their R&D facilities not so much where they want to build them as where R&D people are available in quantity. This explains why even Northern Telecom, the telecommunications-equipment giant that is one of Canada's indigenous world-class companies, has more than 500 of its roughly 2,000 R&D people based in the U.S., mostly in California.

Just how far the current nationalist drive will go is open to question. In general, nationalist sentiment in Canada is strongest during times of prosperity; when things turn really sour, Canadians become less interested in foreign-ownership issues and more interested in the unemployment rate. Moreover, Ottawa's current emphasis on forcibly reducing foreign ownership could weaken if Trudeau steps down in a year or two, as he has hinted he might. The departure of Herb Gray for any reason might also slow down the nationalist drive. Meanwhile, U.S. businessmen north of the border should brace themselves for a colder investment climate. ■

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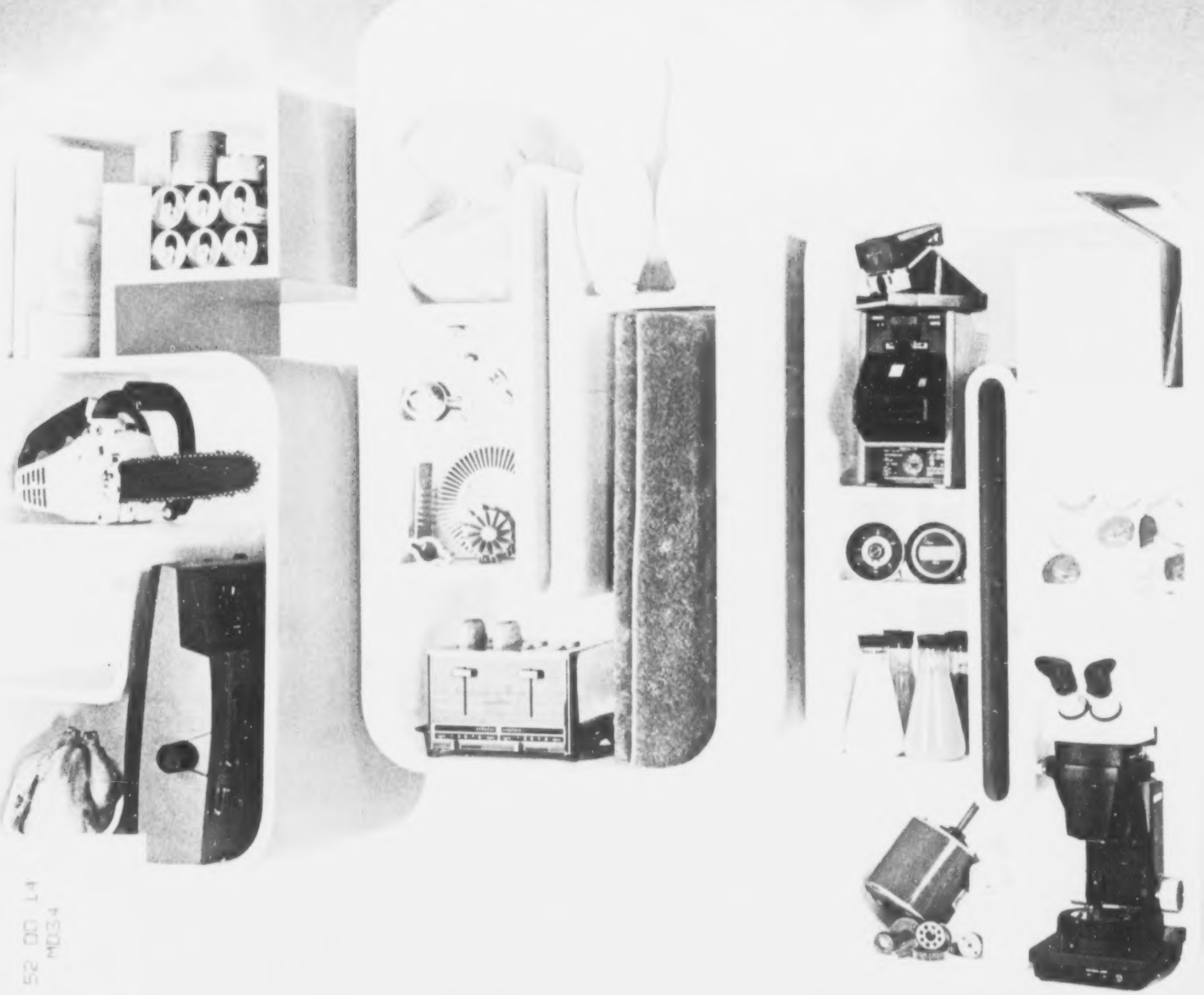

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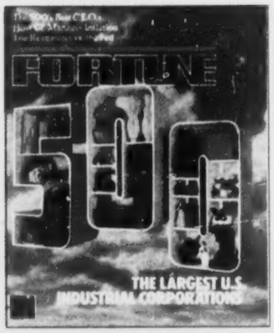

For the cover, Nicholas Fasciano built a shelf system in the shape of a 500 and filled it with products made by companies representing the ten top industrial classifications in the FORTUNE 500. It was photographed by Dan Kozan. Articles about this year's list begin on page 114, and the directory itself begins on page 322.

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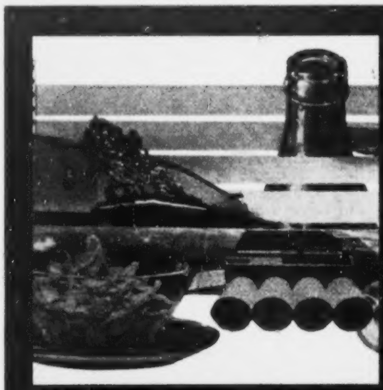

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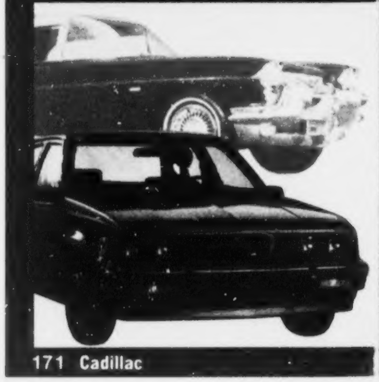

171 Cadillac

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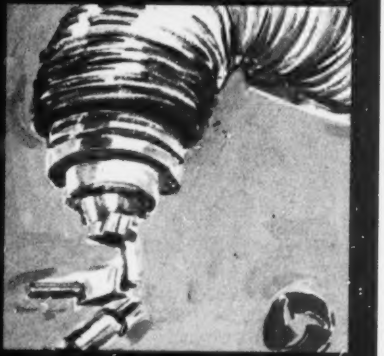

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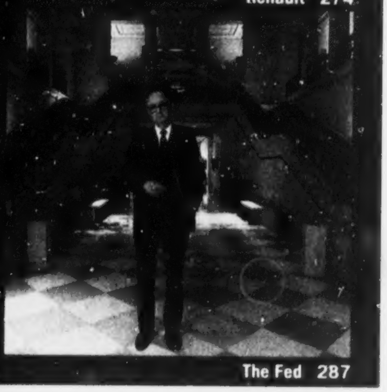

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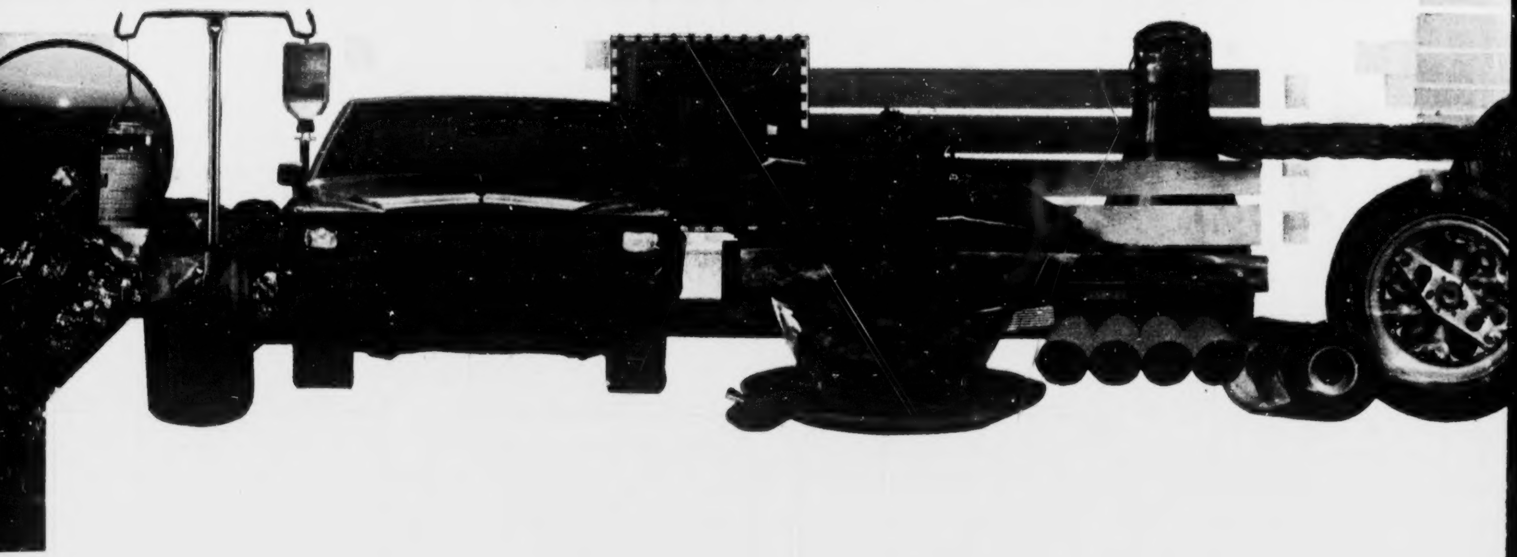
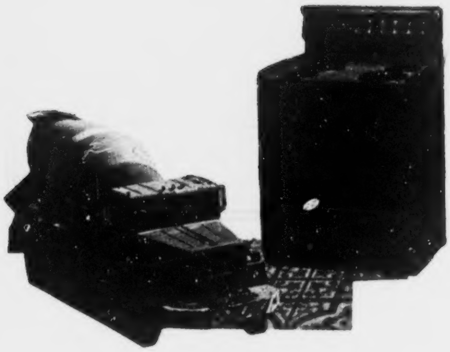


Profitability Goes Through a Ceiling



May 4, 1981

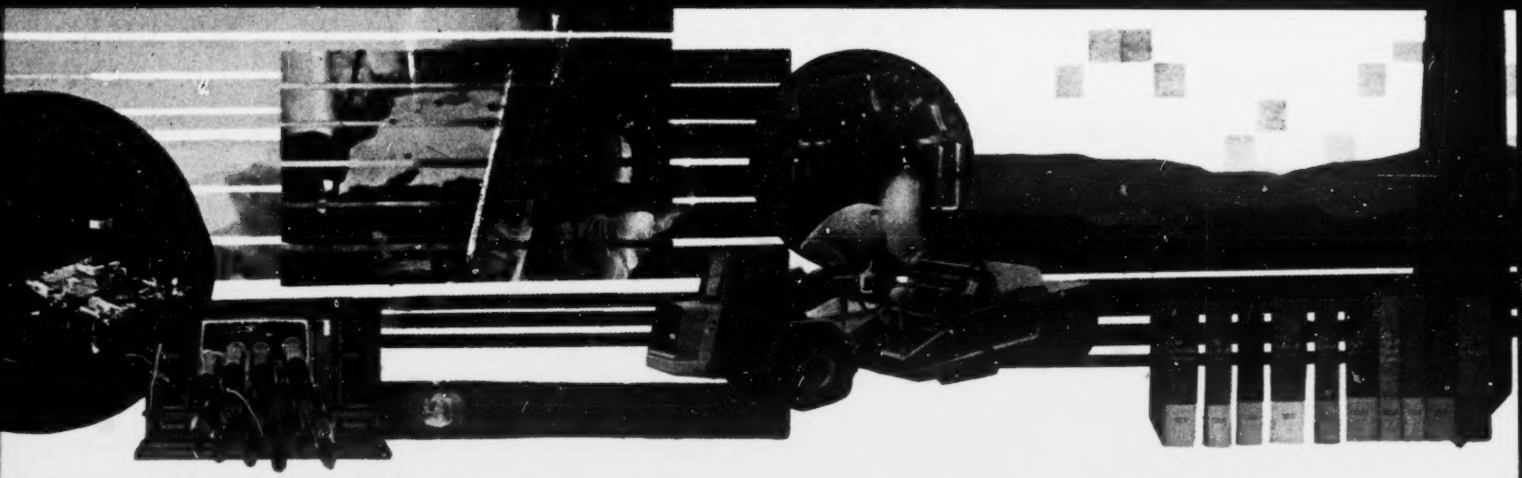
Vicky Maggio

by CAROL J. LOOMIS

This is the 27th running of the FORTUNE 500 (to be found on page 322). But this year holds a certain distinction: it is the first in which there is a fundamental change to be reported about the 500's profitability as measured by return on shareholders' equity—that is, the rate that corporate managements are earning on shareholder funds retained within the business.

Historically, the 500's return on equity kept bumping up against a ceiling of around 12%. In only a few years did the median return for the 500 exceed that level, and at no point from 1958 (when FORTUNE began calculating the median) through 1975 did a five-year average do so. For a stretch, to be sure, the ceiling didn't matter: this performance was not only acceptable but superb, since it presented shareholders with a rate of return well above that available from fixed-income investments.

But when inflation rates took off in the late 1960s, ascending to double digits in 1974, the 12% ceiling began to spell trou-



ble. Fixed-income yields, reflecting inflation, also took off. But Steady Eddie, the 500, just kept chugging along, earning the same old average returns—in the process gutting the hallowed notion that stocks provide an effective hedge against inflation. It may be argued, of course, that the early 1970s were an aberration simply too hot for corporations to handle, since the years delivered the first energy shocks, two recessions, and wage and price controls. But that is really the point: believers in the adaptability of corporations would have expected them to absorb these blows and rise above them. The 500 did not.

The news now is that the 500 has finally done some adapting. It has raised its return on equity, sustained the improvement over a period of years, and resuscitated the thought that major corporations were not put on this earth to be marshmallows in the teeth of inflation. The years of note are the last five, a period that ended with another dose of double-digit inflation rates and another recession. Yet this time around, the 500 earned a median return on equity averaging 14.3%. That is a full 2.9 percentage points better than the average for the preceding five years and 2.5 points better than the best previous period, 1965-69.

It will perhaps be immediately suspected that this rise is based on inventory profits, but as the box on page 118 makes clear, that is not the case. The rise, however, does come out second best in certain comparisons. Yields on single-A industrial bonds have risen faster than the 500's return since the late 1960s, climbing by 3.9 points to a 1976-80 average yield of 9.7%. In 1980 also, yields on the bonds were hitting new highs—they averaged 12.4%—while the 500's return on equity was not: because of the recession, the median fell to 14.4% from the peak of 15.9% set in 1979. Even so, a return above 14% in a recession year is an achievement that once would have seemed impossible. The 500, plainly, has jacked itself a way up the mountain.

Research associate: John J. Curran

A monolith, though, the 500 is not. It is instead a collection of companies and industries that came through the last decade with return-on-equity experiences ranging all over the lot. Evidence to that effect, for 24 different industries (which form the bulk of the 500), can be found in the table that appears on the following two pages. It ranks the players in order of their percentage-point change in return on equity between two five-year periods, 1971-75 and 1976-80.

For the first time ever on a sustained basis, the 500's return on equity has risen well above 12%.

Inflation's impact on the rankings seems to vary. In some cases, an industry's success, or the lack of it, was largely determined by conditions peculiar to its business. The aerospace business ranks high on the list (No. 2) because it got well during the decade, moving from overcapacity problems (which squeezed profit margins) to a period of much-improved markets and prices, particularly for commercial aircraft. The tobacco industry, No. 15, ranks that low because it passed the years diverting excess cash flow from tobacco into businesses less profitable, such as food and beverages; in effect, these diversifications diluted the return on equity the industry was able to earn in the second half of the decade.

In many other cases, however, inflation played a key part in determining an industry's ranking. Some industries, the record makes clear, have financial characteristics or customer franchises that allowed them to cope with inflation in the last few years and, in rare circumstances, even to feed off it. Other industries starved.

The star of the rankings—broadcasting and motion-picture production and distribution—fed a little, raising its median return by a rousing 6.1 percentage points between the two periods. The industry has the advantage of being the least capital-intensive of the crowd, most of whose members faced insistent and costly demands for capital as inflation rose. The broadcasting companies do not have to build new stations or networks when business booms, as it did in the mid-1970s. They have also enjoyed the luxury of selling a scarce resource, to corporate customers willing, if not happy, to accept price increases. The motion-picture companies, meanwhile, hold in their libraries films that have been written off but that are still capable of commanding large prices, today's variety. Witness *Gone with the Wind*, 42 years old and licensed to U.S. and foreign television over the last three years for more than $50 million.

Oil didn't burn things up

Below the top, the rankings quarrel with some pieces of conventional wisdom, notably in connection with the oil industry. Many people will be surprised to see petroleum refining no higher than tenth on the list and absolutely startled to find mining and crude-oil production among three industries that actually went downhill in return on equity. But the fact is that OPEC had the monopoly on petroleum bonanzas through most of the years under examination, while U.S. petroleum companies trudged along under price controls. Only in 1979 and 1980, as controls began to be lifted, did the companies' profits soar, too

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late to have a really big effect on the average for the 1976-80 period.

The motor vehicles and parts industry, meanwhile, turns up surprisingly high on the list (fifth) because of a kind of reciprocal history. Beset by energy-related problems in the 1971-75 period, it fared poorly in returns, then bounded from this low base into three prosperous years, 1976 through 1978. Next, as gasoline prices exploded, the industry's wheels began to come off. In 1980, as everybody knows, the big automobile companies were not earning returns on equity, but were instead watching it roll away at a horrifying rate.

A core equation

One topographical feature of the rankings is the clustering of consumer-products companies near the bottom—food, soaps and cosmetics, pharmaceuticals, and beverages. The presence of pharmaceuticals in the mud flats of the list is another affront to the conventional wisdom, since the industry is commonly regarded as a profit leader, which indeed it is in terms of its absolute return on equity (well above average in both five-year periods). But in the past few years the industry encountered large difficulties passing along its costs, meeting resistance both from the governments that are its main customers abroad and from consumers in the U.S. The other consumer-products businesses keeping company near the bottom have faced similar roadblocks, visible in the flight of shoppers to generic and private-label brands. The rankings, in general, suggest that selling commodity-type items has lately been an unenviable business.

The experiences of all the industries listed are explained further by the additional

Who Led the Rise in Profitability (and Who Lagged)

Twenty-four industries are ranked here by the rise in their return on equity from 1971-75 to 1976-80. The statistics in the right-hand part of the table, which elaborate the profitability equation at the top, suggest how the rise came about. But they only suggest; data limitations prevent using the numbers on the right to obtain the return-on-equity figures on the left.

	Return on stockholders' equity			Industry*	
	1971-75	1976-80	Change in percentage points from 1971-75		Return on stockholders' equity 1980
1	14.9%	21.0%	6.1	Broadcasting, motion-picture production and distribution (6)	18.0%
2	10.4%	16.0%	5.6	Aerospace (14)	16.2%
3	8.3%	13.1%	4.8	Apparel (9)	12.8%
4	9.5%	14.2%	4.7	Office equipment (includes computers) (13)	15.1%
5	8.9%	13.6%	4.7	Motor vehicles (18)	8.1%
6	11.0%	15.3%	4.3	Electronics, appliances (37)	16.2%
7	11.9%	15.8%	3.9	Publishing, printing (13)	15.9%
8	11.7%	15.5%	3.8	Shipbuilding, railroad and transportation equipment (9)	14.4%
9	6.4%	10.1%	3.7	Textiles, vinyl flooring (13)	8.1%
10	12.1%	15.6%	3.5	Petroleum refining (41)	19.4%
11	11.7%	14.9%	3.2	Metal products (23)	15.3%
12	11.1%	14.2%	3.1	Industrial and farm equipment (43)	13.3%
13	12.2%	15.2%	3.0	Measuring, scientific, photographic equipment (15)	17.1%
14	9.8%	12.6%	2.8	Glass, concrete, abrasives, gypsum (16)	11.3%
15	14.2%	17.0%	2.8	Tobacco (4)	19.8%
16	10.8%	13.4%	2.6	Paper, fiber, and wood products (30)	12.8%
17	11.3%	13.9%	2.6	Chemicals (40)	13.9%
18	8.7%	10.9%	2.2	Metal manufacturing (38)	12.9%
19	12.0%	13.7%	1.7	Food (51)	14.5%
20	15.8%	16.8%	1.0	Soaps, cosmetics (8)	16.9%
21	16.4%	17.2%	0.8	Pharmaceuticals (17)	17.9%
22	14.1%	13.9%	(0.2)	Beverages (11)	15.6%
23	15.6%	15.3%	(0.3)	Mining, crude-oil production (13)	21.0%
24	10.0%	8.5%	(1.5)	Rubber, plastic products (6)	5.0%
	11.4%	14.3%	2.9	All industries	14.4%
	8.1%	9.9%	1.8	Average yield on medium-grade industrial bonds	——

*The figure in parentheses following an industry's name indicates the number of companies in that industry on the 500 list for 1980.

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Return on sales × Turnover × Leverage = Return on equity

Return on sales			Turnover (ratio of sales to assets)			Leverage (ratio of assets to stockholders' equity)		
1971-75	1976-80	Percent change from 1971-75	1970	1980	Percent change from 1970	1970	1980	Percent change from 1970
5.6%	7.7%	37.5%	.93	1.27	36.6%	2.78	2.04	(26.6%)
2.7%	4.1%	51.9%	1.52	1.58	3.9%	2.50	2.56	2.4%
2.5%	3.3%	32.0%	1.51	1.75	15.9%	2.22	2.04	(8.1%)
4.0%	6.2%	55.0%	.90	1.02	13.3%	2.23	2.04	(8.5%)
3.2%	3.8%	18.8%	1.39	1.48	6.5%	1.92	2.32	20.8%
4.1%	4.9%	19.5%	1.38	1.49	8.0%	1.95	2.15	10.3%
5.4%	7.4%	37.0%	1.16	1.27	9.5%	1.87	1.79	(4.3%)
3.8%	4.2%	10.5%	1.33	1.69	27.1%	2.50	2.94	17.6%
2.6%	3.6%	38.5%	1.36	1.67	22.8%	1.89	1.91	1.1%
6.2%	5.3%	(14.5%)	.78	1.62	107.7%	1.74	2.50	43.7%
3.7%	4.9%	32.4%	1.30	1.56	20.0%	2.01	1.97	(2.0%)
4.0%	5.2%	30.0%	1.21	1.33	9.9%	1.85	2.05	10.8%
6.4%	7.4%	15.6%	1.12	1.21	8.0%	1.69	1.72	1.8%
4.8%	4.8%	0%	1.08	1.28	18.5%	1.65	2.14	29.7%
7.4%	6.5%	(12.2%)	.80	1.12	40.0%	2.28	2.35	3.1%
5.1%	5.6%	9.8%	.97	1.15	18.6%	1.83	1.89	3.3%
5.0%	5.6%	12.0%	.99	1.26	27.3%	1.89	2.03	7.4%
3.9%	3.6%	(7.7%)	.84	1.29	53.6%	1.97	2.23	13.2%
2.3%	2.8%	21.7%	2.02	2.08	3.0%	1.95	2.14	9.7%
7.0%	6.2%	(11.4%)	1.61	1.64	1.9%	1.67	1.94	16.2%
9.0%	8.7%	(3.3%)	1.12	1.05	(6.3%)	1.53	1.66	8.5%
5.0%	4.7%	(6.0%)	1.34	1.67	24.6%	1.82	2.11	15.9%
12.9%	9.2%	(28.7%)	.57	.89	56.1%	1.74	1.99	14.4%
3.3%	2.5%	(24.2%)	1.16	1.53	31.9%	2.22	2.34	5.4%
4.1%	4.8%	17.1%	1.25	1.43	14.4%	1.91	2.14	12.0%
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Data for 1970 and 1980 are medians. Data for 1971-75 and 1976-80 periods are five-year averages of medians.

information in the table. Those data take up a profit proposition not too widely understood, which is that return on equity is the product of three other financial relationships. The package may be stated as an equation: return on sales×turnover×leverage=return on equity.

Return on sales is profit margin after deduction of all costs. Turnover is sales divided by total assets: in effect, it tells how hard each dollar of assets is working. Leverage, definable several ways, is in this instance total assets divided by shareholders' equity, which is the same thing as total liabilities plus shareholders' equity divided by shareholders' equity. This ratio therefore implies how many liabilities, including long- and short-term debt, are piled onto each dollar of equity. The equation, by the way, works like any other: if one factor within it rises by a given proportion, the product will rise by the same proportion. So if a company's return on sales rises by 10% while turnover and leverage stay constant, the company's return on equity will also rise 10%.

Gradual and abrupt changes

Pushing off from this mathematical platform, the table sizes up the factors that caused the change in the 500's return on equity and the change for each of the 24 different industries. But be aware of two qualifications. One is that while the return-on-sales data, like the return-on-equity data, are based on five-year averages, FORTUNE computed turnover and leverage statistics for only two years, 1970 and 1980. In comparison with the picture that would be presented by five-year data, the turnover and leverage figures, measuring changes between those two years, tend to exaggerate trends that developed during the decade. For the 500 and for the industries whose turnover and leverage moved gradually—a formulation that applies to most on the list—the degree of overstatement is roughly 60%. For industries that experienced abrupt changes in their fortunes—as the oil companies did when controls loosened in the late 1970s—the overstatement is greatly magnified.

continued

The Rise Isn't an Illusion

Having heard ad nauseam about "inflated" profits, many readers will suspect that the rise in the 500's return on equity is somehow bogus—the result of inventory profits or other inflation-related artifacts. However, in FORTUNE's view, the rise is real.

It is true, of course, that the 500 list is built on reported, or historical, profits—the garden-variety kind that have not been adjusted for inflation by any of the methods now on confusing display in the back pages of annual reports. Two such methods, called "constant dollar" and "current cost," tend to reduce reported profits, mainly because they adjust inventory and depreciation costs upward. Adherents of these approaches would regard the 500's profits as overstated.

A reed to lean on

But there is another accounting approach. It rests on the proposition that corporations having more monetary liabilities (which include most liabilities) than monetary assets (for example, cash and receivables) gain from inflation because they are able to pay off their debts in deflated dollars. For many corporations, this kind of gain offsets or more than offsets the profit reductions implied by the constant-dollar and current-cost exercises. It is possible, consequently, to emerge from this maze convinced that, in the aggregate, though not necessarily for any one company, historical profits are a reasonably good reed to lean on. FORTUNE's inclinations, delineated in an August 27, 1979, article, "Unraveling the Mysteries of Corporate Profits," are in that direction.

Even so, there are such things as inventory profits, and the figures for the 500—including return on equity—reflect them. One effect turns up in profit margins, which have been inflated throughout the decade by so-called phantom inventory profits, created by the use of first-in, first-out (FIFO) and average-cost accounting methods. Both, however, have gradually been giving way to the last-in, first-out (LIFO) method, and that means the phantom has less of a grip on profit margins today than he did in the early 1970s. In other words, if the 500's profit margins for all ten years could somehow be adjusted downward to root out inventory profits, the percentage adjustments would be greatest in the early 1970s. Therefore, the rise in profit margins would be larger than is shown in the table on pages 116 and 117.

That same swing to LIFO, however, has produced an offsetting distortion—in the 500's turnover ratio. LIFO works to hold down the stated value of inventories, and therefore assets, on the balance sheet. So when a sales-to-assets turnover ratio is calculated, it comes out higher than it would sans LIFO. For some companies, the understatement of inventories amounts to billions of dollars (which can be thought of as unrealized inventory profits). But for the typical 500 company, the phenomenon is relatively unimportant: a spot check of annual reports indicates that the median turnover ratio of 1.43 shown on the table for 1980 might drop by only 3.5% (to 1.38) if it were based on upward-adjusted inventory values.

In short, inventory idiosyncrasies did not do that much for turnover and actually held down the increase in profit margins. So the 500's rise in return on equity isn't an inflationary illusion.

That qualification, plus the use of medians, helps prompt the second warning: it is not possible to determine an industry's return on equity by multiplying out the three factors presented in the table. You could easily make it work for a single company in a single year—but you can't make it work here.

That said, the message from the table is that the 500's median return on equity rose by 2.9 percentage points, or 25.4%, because there were increases in each of the three factors on which it is built. Return on sales led the way, rising by about 17%. Turnover came next, with an adjusted (that is, reduced by 60%) percentage gain of 5.8%. Leverage brought up the rear, contributing an adjusted 4.8%. The three factors multiply out imprecisely, indicating a rise of 29.7% instead of 25.4%, but that is close enough to suggest where the action lay.

The biggest surprise of this accounting is probably the minor role played by leverage. Its relative unimportance conflicts both with a widespread opinion that debt has burgeoned and with an economic theory that it *should* have, since inflation allows borrowers to pay off their debts in cheapened dollars. It appears, however, that the 500 corporations have found another thought more persuasive. Many of them came into the 1970s already top-heavy with debt and were subsequently jolted by two credit crises—the first in 1970, the second in 1974. The trouble, says one treasurer, "scared the hell out of a lot of managements," and they responded by de-leveraging.

American Standard was one company that did so; vastly overextended in 1970, it put in new management and by 1980 had reduced its leverage from 2.79 to 2.48. General Electric is another example, though its fear, generated in 1974, was simply that it might lose its triple-A bond rating, to which it is emotionally attached. The company has since cut its leverage from 2.37 to 2.26 and kept the rating. Both companies, even while de-leveraging, managed to improve their return on equity: GE's rose by two percentage points from the 1971-75 period to 1976-80, American Standard's by an eye-popping 14 points.

Why Heinz soured on pickles

At the opposite pole from the leverage-lighteners was the petroleum-refining industry, whose huge borrowings to finance exploration and diversification dwarfed anything else around. The industry's median leverage ratio increased from 1.74 to 2.50, a jump of 44%, or close to four times the gain of the 500 as a whole.

The second factor in the profitability equation, turnover, got a small push upward from an accounting wrinkle, as explained in the box at left. But improved management of inventories—reduction of their size in relation to sales—is almost certainly another reason why the 500's turnover ratio has been rising. There is nothing that concentrates the mind of management on inventories like high interest rates, and in the last few years fierce concentration has increasingly been in view. Says Jack A. Chantrey, senior vice president of Paccar: "The No. 1 goal of our operating managers is inventory man-

continued

agement." Says Anthony J. F. O'Reilly, president of H.J. Heinz: "Every line manager here will go to his grave with 'Inventories' emblazoned on his chest." O'Reilly has earned his own tattoo by cutting back on businesses that have poor inventory characteristics, such as pickles, which require the ownership of a cucumber crop—that's inventory—for a whole year. Pickles, says O'Reilly, were "surgically excised." Use of the knife took some nerve: "This is a company whose name was virtually synonymous with pickles. Now we are no longer a force in the business."

Another boost to the turnover ratio has come from the disparate effects of inflation on sales and on fixed assets. Inflation causes sales to rise immediately, but has a lagged impact on fixed assets; the value of these grows on the balance sheet only as new investment is made (at, of course, ever-higher costs). The resulting phenomenon—rising turnover—is sometimes called "the leveraging of fixed assets." The faster inflation rises, furthermore, the larger the lift to turnover. Still, a larger lift is no more than just, since the needs of corporations to earn greater returns rise with inflation also.

The turnover increases shown by the table indicate sizable gains for some industries known to have slowed their spending on capacity during the decade, one being metal manufacturing, which includes the steel and aluminum companies. The leveraging of their fixed assets consequently proceeded apace. In time, the slowdown in spending, combined with import restraints that helped the steel companies, had a second effect: a firming of prices, as demand began to catch up with supply.

A nice trend in taxes

In the world of profit margins, inflationary increases in sales by no means guarantee a rise in percentage returns. Most costs, after all, have the ability to increase just as fast or faster. The clear exception is depreciation charges, which are linked to the level of fixed assets and therefore rise with the same relative slowness. The phenomenon accounts for part of the improvement in the 500's profit margins.

Another part of the story is simply declining tax burdens between the first period under study and the second. These resulted from a 1978 drop in the corporate tax rate, from 48% to 46%, and from corporations' vigorous use of tax benefits such as the investment credit. FORTUNE does not compile tax information for the 500, but for this article looked at data for the Value Line composite, a universe of 900 companies that includes most of the 500. The data suggest that the effective tax rate for the 500 (not including its oil companies, whose tax figures are fuzzed up by definitional problems) may have declined from an average of 44.8% in the 1971-75 period to 42.8% in the years 1976-80. That size a reduction would account for about one-fourth of the 500's gain in profit margin from 4.1% to 4.8%.

The remaining improvement surely owes a lot to a stiffening of the business spine in regard to the pricing of products. "As inflation has taken hold," says Richard H. Francis, treasurer of American Standard, "businessmen have indisputably learned to be more aggressive with their pricing." Some may actually have learned at the feet of LIFO accounting, whose spreading use has shrunk reported profits and quite probably encouraged price increases aimed at undoing the damage. You don't have to be on LIFO, however, to feel strongly about pricing. Membership in the club today is clearly broader than that.

Aggressive pricing, so the story goes, works best when a company is selling the opposite of a commodity: something special. That could be a scarce resource (as has been the case with broadcasters), a product advantage, or a brand name that inspires loyalty. Newspapers, particularly those in one-paper towns, tend to be special, and so do magazines, which are a differentiated product, capable of attracting a faithful following. That kind of merchandise is one reason why the publishing and printing industry managed in the last decade to do well in return on sales.

Perhaps the conclusion to be drawn from this accounting of the last decade is that eventually the 500 learned to cope reasonably well with conditions that initially flummoxed it. As a whole, its companies made some progress, doing so without recourse to large amounts of additional leverage and with a demonstration, in the management of inventories and pricing, of improved skills. Could a case be made that operating management is generally somewhat better today than it was a decade ago because of trial by inflation? One chief executive's answer is "Absolutely."

Some European optimism

The threat now is a future of still more difficult conditions. No one whom FORTUNE talked to for this article expects significant declines in inflation rates, and many executives believe double-digit levels will persist. The only note of optimism came from Ben Heineman, president of Northwest Industries, who returned recently from a trip to Europe. Bankers there, he said, were much encouraged by President Reagan's tough initiatives and tended to believe Americans were far too pessimistic about the possibilities of bringing inflation under control. Heineman didn't come back convinced. A four-year strategic plan that Northwest recently put together assumed annual inflation of 10%, and he thinks he'll stick with that number.

Leaning on similar expectations, and not willing to assume that the past few years of better returns ensure more of the same, many executives have buckled down to making the best of a difficult situation. They have stepped up their efforts to understand inflation's toll and to manage effectively under its strains. The article beginning on the facing page describes the strategies of one major company, General Electric, for handling inflation. Its 499 colleagues may lack programs as elaborate, but surely their anxieties hang every bit as high. F

The 500

The FORTUNE Directory of the Largest U.S. Industrial Corporations

by FORD S. WORTHY

Exxon became the 500's first 12-digit revenue collector in 1980, ringing up $103,142,834,000 on the strength of a 30% rise in sales. Mobil, which grew even faster, by 33%, bullied its way into second place on the list, well behind Exxon but almost $2 billion ahead of General Motors. That's the most significant change at the top of the list in six years and the second big comedown for GM, which had held onto the No. 1 rung from the beginning of the 500 list in 1955 until bumped by Exxon after oil prices shot up. The rest of Big Oil has also grown to preeminence since the Arab embargo. In the 1974 directory seven oil companies were scattered among the top 20, and only Exxon ranked in the top five. Today 13 of the top 20, and four of the top five, are oils.

Once again, inflation was a dominant influence on the 500's performance. Sales increased to a record $1.65 trillion, but the rise, 14.2%, only mirrored what was happening to purchasing power. The consumer price index—the deflator the Financial Accounting Standards Board prescribes for companies that include inflation-adjusted data in their annual reports—rose 13.5%. That leaves the 500 with a real sales increase of a trifling 0.7%.

Profits, *not* adjusted for inflation, grew barely more than a trifle. Though net income of the 500 rose by 27% in 1979, it edged ahead only 3.6% last year. After imposing that burdensome inflation adjustment, profits actually declined in 1980 by almost 10%. Managers of 200 companies had to answer for lower nominal profits, the most that have had to do so in five years, and 23 companies had to contend with losses (up from 13 in 1979).

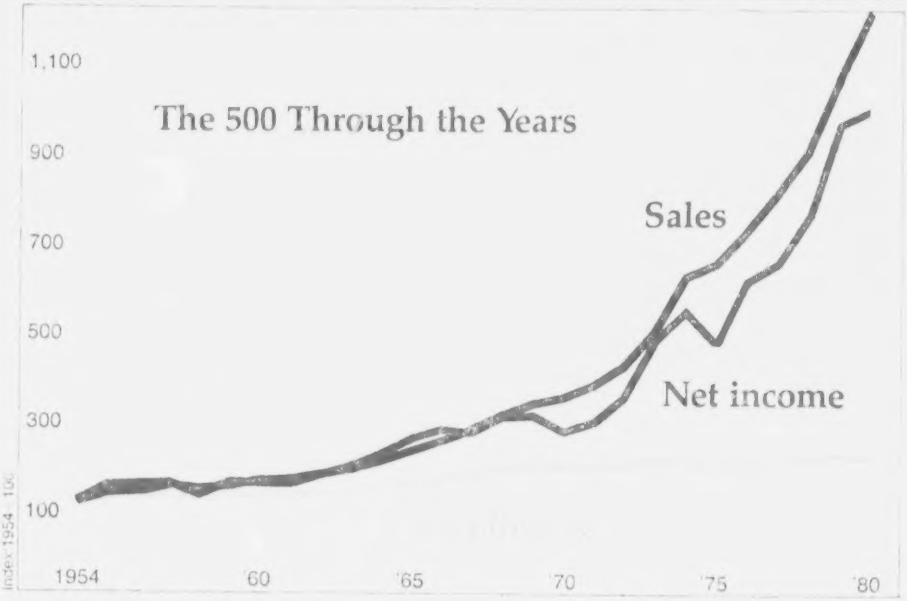
The shareholders win

Paradoxically, the 500's stocks did well. An investor who bought the 500's median (but mythical) performer on December 31, 1979, and then cashed in precisely one year later would have realized a total return—dividend yield plus stock-price appreciation—of 21%, a shade lower than the median figure a year earlier. Had the investor weighted his portfolio in favor of refining and aerospace stocks he would have fared considerably better. Those two industries were the best places to invest in 1980, yielding median total returns of 53.1% and 40.5%.

The total-return calculation for any one year is obviously subject to sharp fluctuations with swings in the stock market. A sturdier measure of the stocks' performance is average total return for ten years, which rose from 6.6% in 1979 to 9.4% last year. That's the highest level since FORTUNE began computing total returns in 1972.

As they generally do, newcomers to the 500 populate the upper ranks of those whose stocks are on the move. The highest flier was Mitchell Energy & Development, a Houston producer of natural gas that landed on No. 496 after leap-

Performance of the 500	1980	1979
Sales ($ billion)	1,650.3	1,445.3
Change in sales (%)	14.2	18.6
Profits ($ billion)	81.2	78.3
Change in profits (%)	3.6	27.3
Assets ($ billion)	1,175.5	1,034.7
Number of sales increases	415	488
Number of profit increases	292	409
Number of money losers	23	13
Median return on sales (%)	4.8	5.2
Median return on equity (%)	14.4	15.9
Median total return for the year (%)	21.05	21.31
Number of employees (million)	15.9	16.2



Since the first FORTUNE 500 was tallied (for 1954) consumer prices have tripled, but the 500's sales have increased 12-fold and profits tenfold. Employment, now some 16 million, has merely doubled. It follows that average sales per employee leaped—from $17,408 in 1954 to $103,725 in 1980. Even in real terms, that's twice as many sales per worker.

frogging 139 places from last year's Second 500. Mitchell's total return for 1980 was a breathtaking 220.3%. Wang Laboratories (No. 457), another glamorous entry from the Second 500, ranked third with 156.8%. Two other newcomers—Trinity Industries (No. 467), a builder of railroad cars and components, and Crouse-Hinds (No. 367), an electrical-products manufacturer—were among the 25 companies posting one-year total returns greater than 100%. Dorchester Gas, one of three newcomers headquartered in Dallas, posted the highest average annual total return for the ten-year period: 42.6%.

The four automobile manufacturers cannot claim to have contributed to the renewal of the stock market—the motor-vehicle industry wound up at the bottom in total return—and they can be held accountable for much of the drabness in profits. All four companies lost money. Collectively, they lost $4.2 billion, more than they made in 1979, as sales dropped $18.4 billion, or 14.7%. But automobiles had help in dragging down the averages. Although the industry was the only money loser, six other industries (of the 25 for which medians were calculated) had earnings declines in 1980.

One number that beckons to the curious is the $104-million negative figure shown as stockholders' equity for Chrysler. FORTUNE, following the SEC's lead, does not include certain types of redeemable preferred stock in equity because the capital is not permanent and must be paid back. Most of Chrysler's redeemable preferred—$343 million worth—was issued to lenders in exchange for debt during the recent restructuring.

Chrysler's negative equity may be the most arresting number in this year's directory, but there are other seeming aberrations. Esmark, for instance, appears as the 50th-largest industrial, with revenues of $6.1 billion, more than twice what it shows in its annual report. The company, which doesn't count sales from discontinued operations, shed its energy segment during the year and took steps to spin off much of its meatpacking subsidiary. FORTUNE showed the whole revenue picture, combining Esmark's continuing ($2.92 billion) and discontinued ($3.19 billion) operations, as it does each year in like cases. By such design, the list's sales figures more nearly correspond to the net income figures found on each company's income statement.

Back on track

While Esmark was preparing for life in fiscal 1981 as a $3-billion company—when it will likely drop from the top 50 for the first time—Penn Central was bound in the opposite direction. The old Penn Central Transportation Co. last appeared in the FORTUNE 1976 directory as one of the 50 largest transportation companies. Since it emerged from bankruptcy, it has been buying its way onto the 500. First it completed the acquisition of Edgington Oil (No. 619 on last year's list), then acquired Marathon Manufacturing (No. 482 in the 1979 directory), and this January received $2.1 billion in cash in settlement for the properties it turned over to Conrail five years ago. Penn Central makes its bow as No. 187 and will doubtless climb higher if its current agreement to absorb GK Technologies (No. 275) is consummated.

Penn Central didn't crack the top five in sales growth despite its 85% increase. Getty Oil, MAPCO, Crouse-Hinds, and Marley all made it, thanks to acquisitions. So did that newcomer, Trinity Industries, which graduated from making components to selling whole railcars last year. Getty digested an oil-brokerage company responsible for half of its 110% growth, MAPCO acquired Earth Resources (No. 503 last year), and Crouse-Hinds took over Belden (No. 612). All three of those acquirers doubled their revenues. Ironically, neither Crouse-Hinds nor Marley may be around for next year's list. Amidst the merger frenzy early this year, both—pending definitive settlements—have themselves been acquired. F

THE 500 LARGEST INDUSTRIAL CORPORATIONS (ranked by sales)

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
1	1	**Exxon** (New York)[1]	103,142,834	56,576,558	1	5,650,090	1	25,412,637	1
2	3	**Mobil** (New York)	59,510,000*	32,705,000	3	3,272,000**	3	13,069,000	4
3	2	**General Motors** (Detroit)	57,728,500	34,581,000	2	(762,500)	490	17,814,600	2
4	5	**Texaco** (Harrison, N.Y.)	51,195,830	26,430,355	5	2,642,542**	4	12,526,100	5
5	6	**Standard Oil of California** (San Francisco)	40,479,000	22,162,000	7	2,401,000	5	11,077,000	6
6	4	**Ford Motor** (Dearborn, Mich.)	37,085,500	24,347,600	6	(1,543,300)	491	8,567,500	9
7	7	**Gulf Oil** (Pittsburgh)	26,483,000*	18,638,000	9	1,407,000	11	9,637,000	7
8	8	**International Business Machines** (Armonk, N.Y.)	26,213,000	26,703,000	4	3,562,000	2	16,453,000	3
9	10	**Standard Oil (Ind.)** (Chicago)	26,133,080	20,167,474	8	1,915,314	6	9,384,673	8
10	9	**General Electric** (Fairfield, Conn.)	24,959,000	18,511,000	10	1,514,000	10	8,200,000	10
11	12	**Atlantic Richfield** (Los Angeles)	23,744,302	16,604,844	12	1,651,423	8	7,438,628	12
12	13	**Shell Oil** (Houston)	19,830,000	17,615,000	11	1,542,000	9	8,100,000	11
13	11	**International Telephone & Telegraph** (New York)	18,529,655	15,417,183	13	894,326	15	6,273,515	13
14	15	**Conoco** (Stamford, Conn.)	18,325,400	11,036,275	18	1,026,195	14	4,584,529	19
15	16	**E.I. du Pont de Nemours** (Wilmington, Del.)	13,652,000	9,560,000	22	716,000	21	5,690,000	15
16	22	**Phillips Petroleum** (Bartlesville, Okla.)	13,376,563	9,844,382	20	1,069,614	13	4,937,355	17
17	18	**Tenneco** (Houston)	13,226,000	13,853,000	14	726,000	19	4,164,000	24
18	20	**Sun** (Radnor, Pa.)	12,945,000	10,955,000	19	723,000	20	4,311,000	23
19	14	**U.S. Steel** (Pittsburgh)	12,492,100	11,747,600	16	504,500	33	5,288,200	16
20	21	**Occidental Petroleum** (Los Angeles)	12,476,125	6,629,889	33	710,785	22	2,054,277	51
21	26	**United Technologies** (Hartford)	12,323,994	7,326,270	29	393,383	45	2,758,045	38
22	19	**Western Electric** (New York)[2]	12,032,100	8,047,500	25	693,200	23	4,449,300	21
23	32	**Standard Oil** (Ohio) (Cleveland)	11,023,196	12,080,050	15	1,811,224	7	4,561,547	20
24	23	**Procter & Gamble** (Cincinnati)[3]	10,772,186	6,553,359	35	542,838	27	3,603,159	27
25	24	**Dow Chemical** (Midland, Mich.)	10,626,000	11,538,000	17	805,000	18	4,440,000	22
26	62	**Getty Oil** (Los Angeles)	10,150,411	8,266,676	24	871,866	17	4,143,912	25
27	25	**Union Carbide** (New York)	9,994,000	9,659,000	21	890,000	16	4,775,000	18
28	34	**Union Oil of California** (Los Angeles)	9,984,100	6,772,100	32	647,000	26	3,476,800	28
29	30	**Eastman Kodak** (Rochester, N.Y.)	9,734,303	8,753,991	23	1,153,579	12	6,027,806	14
30	29	**Boeing** (Seattle)	9,426,200	5,931,300	38	600,500	29	2,314,800	45
31	46	**Dart & Kraft** (Glenview, Ill.)[4]	9,411,500	4,650,300	53	383,100	46	2,620,500	40
32	17	**Chrysler** (Highland Park, Mich.)	9,225,300	6,617,800	34	(1,709,700)	492	(104,000)	499
33	33	**Caterpillar Tractor** (Peoria, Ill.)	8,597,800	6,098,200	37	564,800	31	3,432,000	30
34	37	**Westinghouse Electric** (Pittsburgh)	8,514,300	6,812,600	31	402,900	43	2,529,900	42
35	39	**R.J. Reynolds Industries** (Winston-Salem, N.C.)	8,449,000*	7,355,300	27	670,400	25	3,449,200	29
36	28	**Goodyear Tire & Rubber** (Akron, Ohio)	8,444,015	5,368,301	43	230,689**	81	2,302,500	46
37	35	**Beatrice Foods** (Chicago)[6]	8,290,509	3,980,279	62	290,140	58	2,004,836	54
38	40	**Xerox** (Stamford, Conn.)	8,196,500	7,349,200	28	619,200	28	3,624,700	26
39	43	**Marathon Oil** (Findlay, Ohio)	8,179,751*	5,043,092	52	379,016	47	1,923,396	55
40	44	**Ashland Oil** (Russell, Ky.)[7]	8,118,369	3,357,614	76	205,129	89	916,634	158
41	36	**RCA** (New York)	8,011,300	7,147,600	30	315,300	52	1,862,200	59
42	31	**LTV** (Dallas)	8,009,958	4,029,669	60	127,893	149	818,946	173
43	41	**Amerada Hess** (New York)	7,868,963	5,895,444	39	540,242	32	2,357,257	44
44	47	**Cities Service** (Tulsa)	7,786,300	5,358,000	44	477,500	34	2,578,600	41
45	49	**Philip Morris** (New York)	7,328,300*	7,366,400	26	576,800	30	2,853,000	33
46	45	**Rockwell International** (Pittsburgh)[7]	6,906,500	4,430,900	56	280,200	62	1,740,200	65
47	38	**Bethlehem Steel** (Bethlehem, Pa.)	6,743,000	5,206,800	47	121,000	160	2,622,000	39
48	48	**Monsanto** (St. Louis)	6,573,600	5,796,400	41	148,800	126	2,802,200	37
49	27	**International Harvester** (Chicago)[8]	6,311,804	5,843,458	40	(397,328)	489	1,846,455	60
50	42	**Esmark** (Chicago)[8]	6,108,355	1,853,895	162	471,808	35	579,491	218

THE DEFINITIONS AND CONCEPTS UNDERLYING THE FIGURES IN THIS DIRECTORY ARE EXPLAINED ON PAGE 344.

N.A. Not available

*Does not include excise taxes; see the explanation of "sales" on page 344.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[1] Figures include Reliance Electric (1979 rank: 232), acquired by Exxon September 24, 1979.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
176,615†	9	5.5	194	22.2	48	12.99	9.74	2.96	15.94	147	56.05	82	14.59	131	29
212,800	6	5.5	192	25.0	25	15.40**	9.46	2.39	20.48	73	53.09	91	17.10	103	29
746,000†	1	—		—		(2.65)	10.04	2.09	—		(4.09)	419	2.10	383	40
66,745	50	5.2	217	21.1	61	9.79**	6.48	3.02	12.48	220	74.71	52	10.33	216	29
40,218	112	5.9	168	21.7	52	7.02	5.22	1.34	18.01	103	82.88	40	19.95	77	29
426,700†	2	—		—		(12.83)	9.75	3.82	—		(29.38)	473	(0.92)	425	40
58,900	61	5.3	207	14.6	237	7.21	6.78	2.65	10.53	274	32.49	173	9.86	222	29
341,279	5	13.6	14	21.6	55	6.10	5.16	1.78	13.11	201	10.78	314	3.84	359	44
56,401	68	7.3	104	20.4	68	6.54	5.12	1.14	19.09	85	107.61	16	24.23	37	29
402,000†	3	6.1	160	18.5	119	6.65	6.20	1.82	13.83	184	26.72	208	6.47	292	36
53,400	73	7.0	116	22.2	49	6.64	4.74	0.91	21.99	57	63.57	68	17.83	93	29
36,596	124	7.8	90	19.0	104	4.99	3.66	0.88	18.95	88	120.08	8	22.40	52	29
348,000	4	4.8	237	14.3	255	6.12	2.65	4.23	3.76	372	27.05	205	0.52	413	36
41,503	103	5.6	186	22.4	44	9.52	7.58	1.53	20.06	78	42.87	122	19.61	81	29
135,900†	13	5.2	209	12.6	310	4.83	6.42	2.25	7.94	323	10.83	312	4.12	354	28
32,400	141	8.0	81	21.7	53	7.01	5.77	0.79	24.40	45	26.14	210	18.88	88	29
106,000	21	5.5	193	17.4	145	5.95	5.30	2.09	11.03	260	39.55	141	14.19	140	29
48,806	86	5.6	187	16.8	166	5.92	5.89	1.17	17.60	110	44.47	119	14.61	130	29
149,172†	10	4.0	294	9.5	380	5.77	(3.41)	1.81	12.29	231	50.57	102	7.42	268	33
34,700	132	5.7	179	34.6	4	8.82	7.30	2.92	11.69	249	34.10	162	11.03	200	10
200,200	7	3.2	350	14.3	253	7.28	6.49	1.87	14.56	170	46.98	109	19.34	83	41
177,000†	8	5.8	177	15.6	207	N.A.	N.A.	N.A.	—		—		—		36
22,938	193	16.4	8	39.7	3	7.37	4.92	0.64	27.68	27	66.35	62	24.84	35	29
61,000	57	6.0	166	17.8	133	7.78	6.99	2.60	11.58	251	(2.33)	407	4.55	343	43
56,800	67	7.6	97	18.1	126	4.42	4.33	0.57‡	22.73	53	4.98	357	13.39	151	28
17,318	246	8.6	68	21.0	62	10.60	7.34	1.42**	22.26	56	27.15	204	20.09	74	10
116,105	17	8.9	61	18.6	111	13.36	8.47	2.60	17.78	106	27.03	206	8.08	254	28
17,995	238	6.5	140	18.6	113	3.73	2.88	0.80	16.64	130	102.68	22	21.79	57	29
129,500	15	11.9	23	19.1	101	7.15	6.20	2.50	11.08	258	51.28	98	2.07	384	38
106,300†	20	6.4	146	25.9	21	6.23	5.25	0.23	39.08	9	34.89	157	34.26	6	41
79,968†	39	4.1	292	14.6	236	7.03	6.71[5]	2.92[5]	9.18	305	(2.20)	404	5.35	316	20
92,596†	25	—		—		(26.00)	(17.18)	(0.16)	—		(27.79)	469	(11.69)	459	40
86,350†	33	6.6	135	16.5	174	6.53	5.69	1.69	14.47	175	11.71	305	10.55	211	45
145,513†	11	4.7	249	15.9	193	4.71	(0.87)‡	1.89	9.56	300	54.17	89	3.86	358	36
83,417	36	7.9	83	19.4	93	6.23	5.23	2.28	10.57	272	40.59	134	10.99	201	21
144,452†	12	2.7	375	10.0	369	3.18**	2.02	1.78	5.97	355	34.39	160	(0.80)	424	30
84,000	35	3.5	328	14.5	241	2.81	2.60	1.02	10.67	269	0.12	387	4.69	338	20
120,480	16	7.6	98	17.1	157	7.33	6.69	2.40	11.81	245	0.73	384	(1.46)	430	38
15,247	270	4.6	256	19.7	83	6.27	5.34	1.42	16.01	145	45.39	115	19.12	85	29
24,600	181	2.5	385	22.4	45	6.80	15.55	0.97‡	21.50	61	6.85	346	15.89	114	29
133,000	14	3.9	299	16.9	162	3.35	3.72	1.26	10.27	283	40.69	133	6.21	299	36
63,600	53	1.6	429	15.2	216	3.95	6.03	(17.09)‡	—		153.13	4	6.91	284	33
8,383†	390	6.9	123	22.9	41	6.44	6.07	1.29	17.44	113	82.04	41	10.65	210	29
18,900	225	6.1	155	18.5	116	5.73	4.18	1.37	15.38	159	77.07	47	17.85	91	29
72,000	45	7.9	88	20.2	72	4.63	4.08	0.84	18.61	93	24.34	219	15.69	118	21
108,199	19	4.1	293	16.1	187	3.77	3.67	1.00	14.19	177	91.74	31	23.56	43	41
89,200†	29	1.8	422	4.6	442	2.77	6.31	2.05	3.06	379	32.44	174	7.62	263	33
61,836	54	2.3	398	5.3	441	4.10	9.11	1.83‡	8.40	321	21.05	240	12.46	173	28
87,162	31	—		—		(12.91)	12.01	1.92	—		(28.12)	471	5.57	309	45
37,000	121	7.7	92	81.4	1	21.90	4.40	1.79	28.46	25	93.33	29	12.84	165	20

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[2] Company is wholly owned by American Telephone & Telegraph.

[3] Figures are for fiscal year ending June 30, 1980.

[4] Name changed from Kraft upon merger with Dart Industries (1979 rank: 146), September 25, 1980.

[5] Figure is for Kraft.

[6] Figures are for fiscal year ending February 29, 1980.

[7] Figures are for fiscal year ending September 30, 1980.

[8] Figures are for fiscal year ending October 31, 1980.

THE 500 LARGEST INDUSTRIALS

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
51	55	**W.R. Grace** (New York)	6,101,300	4,364,500	57	283,800	60	1,796,100	63
52	51	**Minnesota Mining & Manufacturing** (St. Paul)	6,079,540	5,045,672	51	678,029	24	3,294,639	31
53	54	**McDonnell Douglas** (St. Louis)	6,066,300	3,899,800	64	144,600	134	1,512,500	75
54	57	**PepsiCo** (Purchase, N.Y.)	5,975,220	3,417,538	72	273,990	65	1,428,923	84
55	50	**General Foods** (White Plains, N.Y.)[9]	5,959,587	2,978,485	87	255,821	70	1,480,304	79
56	59	**Coca-Cola** (Atlanta)	5,912,595	3,405,958	73	422,108	39	2,074,738	50
57	52	**Gulf & Western Industries** (New York)[10]	5,782,783	5,416,776	42	255,284	71	1,666,095	68
58	58	**Armco** (Middletown, Ohio)	5,678,000	3,805,400	67	265,300	68	2,053,200	52
59	69	**Allied Chemical** (Morristown, N.J.)	5,519,000	4,538,000	54	289,000	59	1,664,000	69
60	60	**Deere** (Moline, Ill.)[8]	5,469,825	5,202,424	48	228,271	82	2,141,066	48
61	82	**Lockheed** (Burbank, Calif.)	5,395,700	2,442,500	115	27,600	374	306,200	323
62	64	**Consolidated Foods** (Chicago)[3]	5,342,860	2,263,443	132	127,682	151	856,802	166
63	63	**Aluminum Co. of America** (Pittsburgh)	5,147,600	5,188,100	50	469,900	37	2,933,800	32
64	61	**Colgate-Palmolive** (New York)	5,130,464	2,578,134	110	173,225	107	1,274,013	103
65	72	**Continental Group** (Stamford, Conn.)	5,119,500	3,994,300	61	224,800	83	1,419,700	85
66	●	**Coastal** (Houston)	5,089,923	4,112,631	59	109,524	172	586,076	216
67	66	**International Paper** (New York)	5,042,900	5,197,400	49	314,000	53	2,817,300	36
68	56	**Georgia-Pacific** (Portland, Ore.)	5,016,000	4,512,000	55	244,000	76	1,909,000	56
69	92	**Raytheon** (Lexington, Mass.)[11]	5,002,088	2,928,535	90	282,257	61	1,303,596	98
70	68	**TRW** (Cleveland)	4,983,970	2,854,699	95	211,890	87	1,287,108	100
71	79	**Honeywell** (Minneapolis)	4,924,700	3,892,600	65	293,500	56	1,904,200	57
72	67	**Ralston Purina** (St. Louis)[7]	4,886,000	2,246,500	135	163,000	115	1,132,400	118
73	53	**Firestone Tire & Rubber** (Akron, Ohio)[8]	4,850,500	3,118,600	82	(105,900)**	486	1,343,000	90
74	78	**Johnson & Johnson** (New Brunswick, N.J.)	4,837,400	3,342,500	77	400,700	44	2,269,100	47
75	84	**Union Pacific** (New York)	4,831,676	6,195,147	36	404,546	42	2,831,833	35
76	70	**American Can** (Greenwich, Conn.)	4,812,200	2,822,000	97	85,700	205	1,048,400	125
77	80	**Sperry** (New York)[9]	4,785,425	4,262,186	58	277,092	64	2,033,746	53
78	65	**Greyhound** (Phoenix)	4,766,150	1,905,096	158	118,320	162	849,131	168
79	83	**General Dynamics** (St. Louis)	4,742,700	2,435,800	116	195,000	93	999,400	136
80	87	**Farmland Industries** (Kansas City, Mo.)[12]	4,725,071	2,094,339	144	N.A.[13]		530,667	228
81	77	**Iowa Beef Processors** (Dakota City, Neb.)[8]	4,639,454	509,492	368	53,164	274	290,480	334
82	73	**Borden** (New York)	4,595,795	2,643,294	103	147,863	128	1,234,935	106
83	71	**Weyerhaeuser** (Tacoma, Wash.)	4,535,814	5,238,692	46	277,987‡	63	2,836,754	34
84	74	**Charter** (Jacksonville, Fla.)	4,518,114	1,746,260	170	50,237	287	676,669	197
85	75	**Signal Companies** (La Jolla, Calif.)	4,285,300	3,100,600	83	167,700	112	1,312,600	96
86	89	**American Brands** (New York)	4,276,527*	3,970,883	63	405,489	41	1,809,530	61
87	88	**Bendix** (Southfield, Mich.)[7]	4,270,400	2,923,500	91	191,600	98	1,340,800	92
88	81	**Litton Industries** (Beverly Hills, Calif.)[10]	4,246,532	3,264,291	79	290,821	57	1,166,872	113
89	90	**General Mills** (Minneapolis)[14]	4,170,300	2,012,400	149	170,000	111	1,020,700	131
90	91	**IC Industries** (Chicago)	4,141,600	3,692,800	68	120,700	161	1,277,700	102
91	93	**CPC International** (Englewood Cliffs, N.J.)	4,120,300	2,328,300	126	197,400	91	1,107,200	121
92	104	**Texas Instruments** (Dallas)	4,074,700	2,413,700	117	212,200	86	1,164,500	114
93	98	**Dresser Industries** (Dallas)[8]	4,016,300	2,897,200	93	261,100	69	1,648,200	71
94	94	**CBS** (New York)	3,962,882	2,301,215	130	192,969	94	1,190,212	109
95	96	**Owens-Illinois** (Toledo)	3,905,700	3,066,000	85	149,400	125	1,316,000	94
96	99	**American Home Products** (New York)	3,798,524	2,370,262	123	445,889	38	1,472,774	80
97	97	**United Brands** (New York)[3]	3,762,580	1,264,015	212	31,056	354	563,744	221
98	85	**Republic Steel** (Cleveland)	3,760,042	3,016,832	86	50,983	284	1,507,816	76
99	86	**Champion International** (Stamford, Conn.)	3,752,718	3,339,518	78	147,068‡	130	1,753,290	64
100	76	**National Steel** (Pittsburgh)	3,706,658	3,446,674	71	83,759	210	1,44[illegible]92	82

N.A. Not available

● Indicates that a corporation was not among the 500 or the Second 500 in 1979

*Does not include excise taxes, see the explanation of "sales" on page 344.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year, see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[9] Figures are for fiscal year ending March 31, 1980.

[10] Figures are for fiscal year ending July 31, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
91,700	26	4.7	253	15.8	198	6.08	5.02	1.12‡	18.43	95	51.06	101	14.02	142	28
86,900	32	11.2	31	20.6	67	5.78	5.59	1.68	13.15	200	22.98	225	4.59	341	38
82,550	38	2.4	394	9.6	379	3.65	5.06	2.45	4.07	369	37.64	149	14.42	137	41
111,000	18	4.6	261	19.2	99	3.01	2.85	0.83	13.75	187	14.62	288	7.32	272	49
53,000	74	4.3	274	17.3	150	5.12	4.65	2.00‡	9.86	291	(3.65)	414	1.75	389	20
41,000	107	7.1	111	20.3	69	3.42	3.40	1.24	10.68	267	3.00	370	0.96	402	49
95,520	23	4.4	270	15.3	215	4.38	3.70	0.58	22.41	55	11.82	304	14.86	127	34
59,975	59	4.7	252	12.9	299	4.73	4.82	1.09	15.81	152	58.26	77	16.76	106	33
46,269	93	5.2	211	17.4	148	8.15	0.20	2.47**	12.68	215	13.29	295	13.21	159	10
61,000	56	4.2	283	10.7	361	3.72	5.12	0.78	16.91	121	27.42	201	20.60	64	45
74,600	43	0.5	458	9.0	391	1.53	3.56	(7.60)	—		(2.90)	411	13.88	143	41
88,600	30	2.4	393	14.9	227	4.12	3.60	2.14	6.77	343	(0.92)	395	0.09	417	20
45,600†	96	9.1	56	16.0	190	6.54	7.15	1.44‡	16.34	135	14.48	289	8.56	247	33
48,200†	87	3.4	340	13.6	279	2.12	1.39	0.92	8.71	315	9.31	333	3.03	375	43
58,300†	63	4.4	272	15.8	196	6.11	5.27	3.20	6.68	345	21.30	238	4.71	337	34
6,942	420	2.2	403	18.7	110	4.63	(0.05)	1.67	10.74	263	32.67	169	3.32	369	29
46,048	94	6.2	152	11.1	350	5.97	10.96	0.96‡	20.05	79	19.99	255	6.26	297	26
44,000	98	4.9	233	12.8	301	2.34	3.12	0.87	10.40	280	(0.66)	393	2.42	381	26
77,900	40	5.6	183	21.7	54	6.80	6.30	1.04‡	20.66	70	67.16	59	25.77	28	36
94,051	24	4.3	280	16.5	173	6.39	6.07	2.40	10.29	282	63.59	67	10.83	205	40
97,200	22	6.0	167	15.4	211	13.13	11.89	3.58	13.88	182	37.60	151	6.10	301	44
70,000	48	3.3	343	14.4	243	1.51	1.19	0.56	10.43	279	1.27	379	4.87	329	20
83,000	37	—		—		(1.84)**	1.96**	1.60	—		21.71	234	(2.32)	435	30
74,300	44	8.3	77	17.7	138	6.50	5.76	1.51	15.72	155	28.67	193	7.16	278	42
32,657†	140	8.4	74	14.3	252	4.22	4.01	0.89	16.84	122	121.87	7	24.74	36	29
51,000†	79	1.8	423	8.2	411	4.26	6.44	3.55	1.84	388	(6.60)	432	4.55	344	34
90,513	27	5.8	176	13.6	277	7.60	6.35	2.37	12.36	228	28.77	192	11.88	188	44
52,278†	78	2.5	388	13.9	263	2.67	2.80	1.40	6.67	346	4.60	359	6.09	303	20
84,400	34	4.1	289	19.5	91	3.58	3.43	(0.12)	—		43.40	121	27.73	20	41
10,100	354	—		—		N.A.	N.A.	N.A.	—		—		—		29
11,049	338	1.1	441	18.3	124	5.17	4.28	0.08	51.72	3	106.81	17	20.37	70	20
38,400†	114	3.2	347	12.0	324	4.79	4.31	1.83	10.10	288	15.73	280	5.02	322	20
45,714	95	6.1	156	9.8	375	2.12‡	4.02	0.94	8.47	319	11.57	307	4.29	348	26
11,093	337	1.1	443	7.4	419	1.59	14.83	0.30	18.15	99	(41.65)	478	23.74	41	29
49,500	84	3.9	303	12.8	302	2.89	3.52	(0.79)‡	—		18.99	261	25.71	29	40
52,456	77	9.5	47	22.4	43	14.02	12.00	4.03	13.28	197	22.87	227	12.74	168	21
74,600†	42	4.5	265	14.3	251	7.68	7.10	1.10‡	21.45	62	51.86	95	17.84	92	40
75,400	41	6.8	125	24.9	26	7.42	4.77	1.49	17.41	114	117.17	10	18.50	89	36
66,000	51	4.1	291	16.7	168	3.37	2.92	0.63‡	18.26	97	13.43	293	8.15	251	20
61,332	55	2.9	362	9.4	381	6.02	9.52	2.56	8.93	309	32.50	172	6.76	287	20
40,500	109	4.8	242	17.8	134	8.28	7.51	2.56	12.46	223	9.81	329	12.04	186	20
89,875	28	5.2	214	18.2	125	9.22	7.58	1.36	21.09	66	39.48	142	13.04	161	36
52,800	76	6.5	137	15.8	195	3.35	2.94	0.75	16.14	142	107.98	15	23.09	41	45
35,630	125	4.9	232	16.2	182	6.92	7.21	2.20	12.14	232	(3.72)	415	9.37	233	48
58,891	62	3.8	306	11.4	341	5.09	4.56	1.56‡	12.55	219	32.84	168	3.30	370	32
49,829	83	11.7	25	30.3	8	2.84	2.51	0.86	12.69	214	9.46	332	5.17	320	42
50,400	80	0.8	449	5.5	438	2.54	1.72	(0.35)‡	—		56.14	81	0.76	408	20
40,746†	108	1.4	434	3.4	454	3.15	7.49	2.17	3.80	370	5.13	356	5.74	308	33
41,199	106	3.9	302	8.4	406	2.63‡	4.70	0.78‡	12.92	208	8.57	337	3.87	357	26
33,856	139	2.3	399	5.8	435	4.42	6.56	3.58	2.13	385	1.78	375	1.87	388	33

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[11] Figures include Beech Aircraft (1979 rank, 396), merged into Raytheon February 8, 1980

[12] Figures are for fiscal year ending August 31, 1980

[13] Cooperatives provide only "net margin" figures, which are not comparable with the net income figures in these listings

[14] Figures are for fiscal year ending May 31, 1980

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
101	103	**Reynolds Metals** (Richmond, Va.)	3,653,200	3,097,400	84	180,300	105	1,347,800	89
102	100	**Textron** (Providence)	3,637,500	2,187,400	139	86,100	204	1,153,800	115
103	102	**FMC** (Chicago)	3,482,183	2,617,297	107	142,708	136	1,245,901	104
104	105	**Warner-Lambert** (Morris Plains, N.J.)	3,479,207	2,953,895	89	192,716	95	1,487,295	78
105	128	**Kerr-McGee** (Oklahoma City)	3,477,881	2,806,559	98	182,223	103	1,341,972	91
106	106	**American Cyanamid** (Wayne, N.J.)	3,453,934	2,916,563	92	159,195	117	1,435,347	83
107	107	**Celanese** (New York)	3,348,000	2,634,000	105	122,000	158	1,102,000	123
108	111	**NCR** (Dayton, Ohio)	3,322,370	3,366,455	74	254,686	73	1,704,483	67
109	142	**Land O' Lakes** (Minneapolis)	3,303,719	704,540	311	N.A.[13]		226,135	379
110	119	**Anheuser-Busch** (St. Louis)	3,295,400	2,449,800	114	171,800	108	1,037,800	126
111	108	**McDermott** (New Orleans)[9,15]	3,282,510	3,550,648	69	88,366	197	1,016,659	132
112	95	**Inland Steel** (Chicago)	3,255,898	2,958,242	88	29,681	365	1,299,362	99
113	116	**Carnation** (Los Angeles)	3,236,222	1,590,629	180	154,748	120	953,015	148
114	113	**Kaiser Aluminum & Chemical** (Oakland, Calif.)	3,222,100	3,196,800	81	247,600	75	1,418,700	86
115	101	**Eaton** (Cleveland)	3,176,466	2,302,460	129	115,784	166	1,005,107	135
116	110	**PPG Industries** (Pittsburgh)	3,158,400	2,825,900	96	209,200	88	1,501,100	77
117	122	**Bristol-Myers** (New York)	3,158,300	2,209,400	138	270,600	66	1,380,100	88
118	121	**Combustion Engineering** (Stamford, Conn.)	3,146,455	2,393,284	119	116,672	164	636,106	206
119	151	**Diamond Shamrock** (Dallas)	3,143,040	2,793,048	99	201,214	90	1,241,714	105
120	150	**Hewlett-Packard** (Palo Alto, Calif.)[6]	3,099,000	2,337,000	125	269,000	67	1,547,000	74
121	125	**Motorola** (Schaumburg, Ill.)	3,098,763	2,111,961	142	186,081	101	1,151,959	117
122	112	**B.F. Goodrich** (Akron, Ohio)	3,079,597	2,216,166	137	61,717	251	947,803	149
123	117	**Crown Zellerbach** (San Francisco)	3,069,800	2,372,700	121	97,400	185	1,189,000	110
124	130	**Emerson Electric** (St. Louis)[7]	3,066,841	1,929,417	156	237,723	79	1,229,768	107
125	164	**Pillsbury** (Minneapolis)[14]	3,032,000	1,983,700	152	104,700	174	669,700	200
126	123	**Pfizer** (New York)	3,029,300	3,363,700	75	254,800	72	1,572,900	73
127	114	**Boise Cascade** (Boise, Idaho)	3,018,940	2,679,190	101	148,770	127	1,280,978	101
128	131	**Standard Brands** (New York)	3,018,466	1,608,441	179	104,384	175	654,037	204
129	136	**Ingersoll-Rand** (Woodcliff Lake, N.J.)	2,970,960	2,526,839	113	160,274	116	1,176,346	111
130	127	**Norton Simon** (New York)[3]	2,959,063	2,620,218	106	124,730	154	995,645	137
131	115	**AMAX** (Greenwich, Conn.)	2,949,170	5,275,600	45	470,390	36	2,469,490	43
132	126	**Teledyne** (Los Angeles)	2,926,419	2,552,256	111	343,797	48	1,401,342	87
133	139	**H.J. Heinz** (Pittsburgh)[16]	2,924,774	1,954,286	153	142,887	135	870,459	162
134	129	**Burlington Industries** (Greensboro, N.C.)[7]	2,900,649	2,117,341	140	81,330	213	1,109,838	120
135	137	**Time Inc.** (New York)	2,881,783	2,370,630	122	141,203	137	919,588	156
136	133	**Northwest Industries** (Chicago)	2,876,400	2,271,700	131	155,400	119	959,400	145
137	118	**Burroughs** (Detroit)	2,857,186	3,854,694	66	81,972	212	2,125,026	49
138	167	**Levi Strauss** (San Francisco)[17]	2,840,844	1,455,360	194	223,689	84	831,629	171
139	153	**Archer-Daniels-Midland** (Decatur, Ill.)[3]	2,802,011	1,365,564	205	115,958	165	766,971	176
140	132	**Singer** (Stamford, Conn.)	2,786,600	1,529,300	188	38,100	325	427,400	266
141	159	**Control Data** (Minneapolis)	2,765,600	2,534,800	112	150,600	123	1,454,700	81
142	147	**Merck** (Rahway, N.J.)	2,734,012	2,865,755	94	415,396	40	1,863,322	58
143	138	**St. Regis Paper** (New York)	2,714,175	2,642,236	104	170,492	109	1,339,151	93
144	135	**Mead** (Dayton, Ohio)	2,707,200	1,866,600	161	128,600	147	860,000	165
145	144	**American Standard** (New York)	2,673,589	1,578,371	182	156,893	118	636,047	207
146	124	**Borg-Warner** (Chicago)	2,673,300	1,901,600	159	126,100	153	1,153,700	116
147	171	**Agway** (Dewitt, N.Y.)[3]	2,658,610	1,041,811	243	N.A.[13]		267,197	349
148	145	**North American Philips** (New York)	2,658,431	1,517,905	191	74,488	226	630,672	209
149	168	**Martin Marietta** (Bethesda, Md.)	2,619,327	2,069,418	145	188,133	100	1,103,146	122
150	162	**Kimberly-Clark** (Neenah, Wis.)	2,600,300	2,325,500	127	181,800	104	1,311,400	97

N.A. Not available.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

[15] Name changed from J. Ray McDermott August 15, 1980.

[16] Figures are for fiscal year ending April 30, 1980.

[17] Figures are for fiscal year ending November 30, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
36,800†	123	4.9	227	13.4	286	9.32	9.25	2.51	14.02	181	15.38	282	7.50	267	33
61,000	58	2.4	396	7.5	418	2.30	4.51	1.99	1.46	392	20.11	253	7.32	271	34
43,799	100	4.1	290	11.5	338	4.26	4.55	1.76	9.24	303	22.90	226	7.59	265	45
56,000	69	5.5	189	13.0	298	2.41	1.55	1.29	6.45	349	7.23	343	(1.80)	432	42
11,286	335	5.2	210	13.6	280	7.02	6.18	1.57	16.16	141	19.17	258	10.36	214	29
42,614	102	4.6	259	11.1	352	3.32	3.52	2.04	4.99	363	0.66	385	4.96	326	28
32,800	139	3.6	320	11.1	353	8.20	9.52	3.52	8.82	313	23.48	222	4.88	328	28
68,000	49	7.7	95	14.9	225	9.51	8.78	1.39	21.20	64	11.05	311	9.15	239	44
8,800†	382	—			—	N.A.	N.A.	N.A.	—		—		—		20
18,040	233	5.2	212	16.6	171	3.80	4.34	1.40	10.50	276	27.74	199	(0.66)	422	49
58,000	64	2.7	380	8.7	399	1.77	1.94	1.06**	5.26	359	69.40	56	22.41	51	34
34,903†	131	0.9	448	2.3	460	1.38	6.27	2.38‡	(5.30)	408	(4.27)	420	7.14	280	33
22,420	199	4.8	244	16.2	180	4.15	3.70	1.24	12.84	211	16.14	277	4.54	345	20
25,810†	173	7.7	94	17.5	144	5.91	5.66	1.25	16.81	126	24.94	218	7.26	273	33
50,358	81	3.6	319	11.5	336	4.35	5.89	1.69	9.92	290	17.93	267	7.69	261	40
37,300	120	6.6	134	13.9	262	6.34	6.78	1.01	20.16	77	48.47	107	11.61	191	28
35,000	128	8.6	69	19.6	88	4.08	3.50	1.21	12.92	207	40.37	136	7.54	266	42
46,299	92	3.7	312	18.3	121	3.56	2.98	1.05	12.99	205	61.77	70	14.45	134	45
12,654	305	6.4	144	16.2	183	3.66	3.37	0.78	16.72	128	17.45	271	17.27	100	29
57,000	66	8.7	65	17.4	146	4.47	3.43	0.45	25.81	39	52.05	94	20.03	76	38
71,500	46	6.0	164	16.2	186	5.96	4.96	0.91	20.68	69	45.52	114	12.18	182	36
40,232	111	2.0	410	6.5	429	3.57	4.89	1.09**	12.60	218	34.70	158	4.74	336	30
30,569	150	3.2	351	8.2	410	3.46	5.24	1.77	6.93	339	16.55	274	9.61	228	26
53,800†	72	7.8	91	19.3	96	3.72	3.37	1.15	12.46	222	8.59	336	3.74	361	36
59,500	60	3.5	334	15.6	204	5.22	4.62	1.66	12.14	233	12.26	303	7.20	277	20
41,200	105	8.4	73	16.2	184	3.48	3.26	1.28	10.52	275	39.96	139	6.65	288	42
32,330	142	4.9	228	11.6	334	5.58	6.52	1.18	16.81	125	5.71	351	0.04	418	26
24,200	182	3.5	333	16.0	192	3.65	3.04	1.40	10.06	289	8.39	338	5.43	314	20
47,354	91	5.4	202	13.6	276	8.08	7.51	3.87	7.64	326	50.38	105	9.50	232	45
38,000	116	4.2	282	12.5	313	2.57	2.52	1.09	8.96	308	4.21	362	0.69	409	20
20,385	220	15.9	9	19.0	103	7.48	6.49	2.27	12.66	216	(4.33)	421	10.78	206	33
47,800	89	11.7	24	24.5	31	22.85	22.07	1.07	35.82	12	101.49	24	32.16	9	45
45,000†	97	4.9	231	16.4	176	6.24	4.80	1.61	14.51	171	20.37	250	10.89	203	20
65,000	52	2.8	370	7.3	421	2.90	2.73	2.73	0.61	395	14.95	286	(2.99)	440	22
26,000†	171	4.9	230	15.4	214	5.02	5.15	1.42	13.46	194	36.64	154	15.76	117	27
44,000†	99	5.4	201	16.2	185	5.03	5.60	(16.67)‡	—		15.17	283	20.56	66	33
57,300	65	2.9	365	3.9	452	1.99	7.45	1.92	0.36	398	(28.07)	470	1.17	398	44
48,000	88	7.9	86	26.9	18	5.36	4.58	0.48	27.29	29	21.51	236	—		23
5,590	441	4.1	285	15.1	220	3.20	1.63	0.34	25.13	41	28.33	196	26.51	26	20
71,000	47	1.4	433	8.9	392	1.92	(5.90)	4.25	(7.64)	413	32.65	171	(11.38)	458	36
48,974	85	5.4	196	10.4	364	8.45	7.20	(0.34)**	—		30.96	182	3.58	364	44
31,600	145	15.2	11	22.3	47	5.54	5.06	1.56	13.51	192	20.49	243	7.76	260	42
29,700	153	6.3	149	12.7	306	5.18	4.87	1.71**	11.72	248	20.76	242	8.44	249	26
25,000	177	4.8	247	15.0	224	4.84	5.42	0.47	26.26	34	12.42	300	14.92	125	26
47,400	90	5.9	172	24.7	29	5.69	4.76	(0.27)‡	—		27.40	202	13.54	150	37
55,200†	70	4.7	250	10.9	358	5.85	7.25	1.65‡	13.49	193	25.70	214	10.00	220	40
12,762	302	—			—	N.A.	N.A.	N.A.	—		—		—		29
43,448	101	2.8	371	11.8	330	5.70	6.28	1.00	19.01	86	48.90	106	10.35	215	36
34,650	133	7.2	110	17.1	158	7.55	7.10	1.75	15.74	154	61.17	72	22.48	50	41
31,263	147	7.0	115	13.9	265	7.85	13.43	1.64	16.95	118	38.32	145	10.71	208	26

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
151	148	**Avon Products** (New York)	2,569,100	1,571,400	183	241,300	77	921,200	155
152	149	**Nabisco** (East Hanover, N.J.)	2,568,685	1,423,162	197	127,767	150	672,507	198
153	158	**Campbell Soup** (Camden, N.J.)[10]	2,560,569	1,627,565	176	121,655	159	958,443	146
154	163	**Eli Lilly** (Indianapolis)	2,558,637	2,607,452	108	341,974	49	1,736,693	66
155	109	**American Motors** (Southfield, Mich.)	2,552,587	1,028,957	244	(197,525)	487	434,247	263
156	155	**Kidde** (Clifton, N.J.)[18]	2,539,275	1,587,806	181	87,387	199	631,241	208
157	120	**Dana** (Toledo)[12]	2,524,008	1,935,460	154	95,727	168	959,807	144
158	152	**Hercules** (Wilmington, Del.)	2,485,226	1,889,679	160	114,000	170	1,009,746	134
159	170	**Pennzoil** (Houston)	2,483,015	2,591,582	109	308,509	54	1,023,102	130
160	176	**Quaker Oats** (Chicago)[3]	2,405,200	1,334,200	209	96,400	187	582,900	217
161	178	**Tosco** (Los Angeles)	2,387,241	872,421	269	46,096	297	236,021	367
162	187	**Digital Equipment** (Maynard, Mass.)[3]	2,368,045	2,066,068	102	249,861	74	1,651,749	70
163	174	**Gillette** (Boston)	2,315,294	1,708,504	172	123,977	155	716,641	187
164	134	**Uniroyal** (Middlebury, Conn.)	2,299,463	1,528,672	189	(7,842)	472	494,155	245
165	160	**Owens-Corning Fiberglas** (Toledo)	2,285,067	1,533,830	187	54,321	270	759,775	179
166	156	**Johns-Manville** (Denver)	2,266,804	2,338,159	124	80,636	216	921,888	154
167	190	**McGraw-Edison** (Rolling Meadows, Ill.)	2,263,600	1,783,200	165	51,000	283	543,900	225
168	169	**American Broadcasting** (New York)	2,256,216	1,410,876	199	146,304	132	870,085	163
169	143	**Kennecott** (Stamford, Conn.)[19]	2,255,834	3,231,439	80	192,350	97	1,615,803	72
170	157	**Whirlpool** (Benton Harbor, Mich.)	2,243,181	1,074,521	236	101,699	180	723,658	185
171	154	**General Tire & Rubber** (Akron, Ohio)[17]	2,215,206	1,806,117	164	40,761	320	985,499	141
172	196	**Revlon** (New York)	2,203,324	2,260,260	133	192,407	96	955,884	147
173	172	**Gould** (Rolling Meadows, Ill.)	2,199,862	1,608,508	178	72,474	232	803,061	174
174	161	**Ogden** (New York)	2,187,336	1,340,202	208	58,249	258	404,859	273
175	165	**Colt Industries** (New York)	2,165,602	1,438,153	196	97,751	184	677,636	196
176	183	**Kellogg** (Battle Creek, Mich.)	2,150,900	1,181,867	223	184,800	102	743,600	183
177	166	**NL Industries** (New York)	2,117,552	1,774,053	166	167,673	113	903,040	160
178	203	**American Petrofina** (Dallas)	2,098,464	1,187,572	221	104,279	176	502,648	238
179	179	**Scott Paper** (Philadelphia)	2,083,235	2,013,952	148	133,506	144	1,121,071	119
180	140	**Fruehauf** (Detroit)	2,081,748	1,524,987	190	32,213	349	529,111	229
181	182	**Williams Companies** (Tulsa)	2,072,686	2,380,001	120	138,696	139	965,715	143
182	175	**Allis-Chalmers** (West Allis, Wis.)	2,063,940	1,548,830	186	48,222	294	670,847	199
183	199	**Warner Communications** (New York)	2,059,414	1,768,775	167	137,091	142	746,965	181
184	173	**White Consolidated Industries** (Cleveland)	2,057,336	1,160,096	225	57,009	260	436,310	262
185	197	**Abbot Laboratories** (North Chicago, Ill.)	2,038,155	2,062,835	146	214,413	85	1,027,222	129
186	181	**INTERCO** (St. Louis)[6]	2,024,307	1,239,036	215	106,706	173	836,313	169
187	●	**Penn Central** (New York)	2,013,700	2,726,900	100	93,600	191	1,081,200	124
188	207	**Murphy Oil** (El Dorado, Ark.)	1,966,722	2,308,329	128	150,547	124	679,312	194
189	177	**Jim Walter** (Tampa, Fla.)[12]	1,966,613	2,226,210	136	84,202**	209	720,527	186
190	186	**Koppers** (Pittsburgh)	1,929,190	1,385,888	204	54,989	265	643,455	205
191	184	**J.P. Stevens** (New York)[8]	1,915,959	1,070,352	237	20,317	413	524,804	231
192	193	**SCM** (New York)[3]	1,892,392	1,008,588	247	53,861	271	455,345	252
193	200	**Gold Kist** (Atlanta)[3]	1,881,562	553,415	350	N.A.[13]		132,403	454
194	201	**Times Mirror** (Los Angeles)	1,857,349	1,734,788	171	139,217	138	822,735	172
195	189	**Olin** (Stamford, Conn.)	1,852,853	1,550,128	185	33,931	336	750,120	180
196	188	**Squibb** (New York)	1,845,787	1,905,669	157	127,426	152	1,011,903	133
197	225	**Cooper Industries** (Houston)	1,842,173	1,613,375	177	146,672	131	832,604	170
198	185	**Marmon Group Inc.** (Chicago)	1,829,301	973,681	254	80,876	215	374,943	289
199	195	**Asarco** (New York)	1,817,032	2,044,751	147	237,338	80	1,313,942	95
200	205	**Emhart** (Farmington, Conn).	1,802,900	977,000	253	67,000	242	453,900	253

N.A. Not available

● Indicates that a corporation was not among the 500 or the Second 500 in 1979.

** Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

† Average for the year; see the reference to "employees" on page 344.

‡ Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[18] Name changed from Walter Kidde April 16, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
34,300	134	9.4	49	26.2	20	4.01	4.17	1.72	8.83	312	(5.84)	429	(5.22)	449	43
38,000†	115	5.0	223	19.0	106	3.96	3.10	1.51	10.12	285	29.11	190	5.93	305	20
37,961	117	4.8	246	12.7	307	3.69	3.98	1.87	7.03	337	9.67	331	3.88	356	20
28,100	159	13.4	16	19.7	84	4.52	4.52	1.40	12.43	225	10.38	320	4.91	327	42
21,400	207	—		—		(6.00)	2.76**	(2.28)	—		(41.46)	477	(2.82)	439	40
53,000	75	3.4	335	13.8	266	8.59	7.85	(3.73)‡	—		31.86	177	9.61	229	45
37,300†	119	3.8	310	10.0	370	2.78	5.03	1.24	8.41	320	(10.82)	442	9.58	231	40
22,928	194	4.6	260	11.3	344	2.60	3.89	1.26	7.51	327	(2.07)	403	2.73	378	28
10,468	350	12.4	20	30.2	9	5.90	4.69	1.44	15.15	163	18.70	263	14.19	141	29
32,000	144	4.0	295	16.5	172	4.55	4.75	1.47	11.96	238	12.60	298	2.94	376	20
3,055	481	1.9	414	19.5	90	2.15	3.84	0.05	45.66	5	42.16	125	28.89	17	29
55,000	71	10.6	37	15.1	218	5.45	4.10	0.50	26.98	30	37.93	147	17.41	98	44
34,100	135	5.4	205	17.3	149	4.11	3.67	2.26	6.16	352	13.01	296	(0.73)	423	34
33,939†	136	—		—		(0.30)	(4.54)	0.73	—		38.14	146	(7.46)	453	30
24,000†	185	2.4	395	7.1	424	1.78	3.59	0.71	9.63	298	(1.93)	402	4.75	334	32
31,000	149	3.6	326	8.7	397	2.47	4.13	2.02	2.03	386	10.54	317	0.67	412	32
35,000	130	2.3	400	9.4	383	3.12	4.44	2.18	3.65	374	44.68	118	6.39	294	36
12,800	301	6.5	139	16.8	165	5.18	5.67	0.79	20.69	68	(27.45)	468	15.82	116	48
35,000	129	8.5	70	11.9	326	5.79	3.93	5.58	0.37	397	(10.24)	440	0.41	414	33
23,106	190	4.5	262	14.1	258	2.81	3.06	0.61‡	16.50	133	10.13	326	2.67	379	36
39,000	113	1.8	417	4.1	447	1.68	3.37	1.80	(0.69)	401	(2.85)	410	6.65	289	30
36,900	122	8.7	64	20.1	74	4.87	4.60	1.11‡	15.94	148	10.13	325	5.46	312	43
35,261	126	3.3	344	9.0	390	2.10	3.78	1.40	4.14	367	17.07	272	11.76	189	36
30,500	151	2.7	382	14.4	244	4.56	4.39	0.67‡	21.14	65	41.35	129	20.51	68	37
31,300	146	4.5	264	14.4	242	7.38	8.40	0.91	23.28	50	9.74	330	20.91	62	33
21,285	208	8.6	67	24.9	28	2.42	2.13	0.68	13.54	190	14.37	290	10.21	219	20
22,450	198	7.9	84	18.6	114	4.94	3.28	1.60	11.93	240	125.14	6	22.27	55	28
2,742	484	5.0	224	20.7	66	9.69	7.77	2.88	12.90	209	61.85	69	14.48	132	29
20,500	219	6.4	142	11.9	325	3.43	3.52	1.42	9.22	304	19.17	259	3.14	372	26
29,150	154	1.5	430	6.1	431	2.63	7.28	2.03	2.62	381	(1.71)	400	5.24	318	40
7,600	407	6.7	129	14.4	246	5.07	2.55	1.71	11.48	252	51.10	100	13.58	149	28
28,899†	155	2.3	397	7.2	423	3.60	6.23	1.20	11.61	250	10.83	313	12.15	183	45
9,350	374	6.7	130	18.4	120	2.38	3.70	0.71[20]	12.86	210	112.50	11	19.38	82	36
28,000	161	2.8	373	13.1	296	3.94	5.95	(1.35)‡	—		7.97	341	12.44	174	36
31,042	148	10.5	38	20.9	65	3.46	2.97	0.73	16.84	123	40.18	138	13.83	145	42
50,000	82	5.3	208	12.8	304	7.35	6.37	3.31	8.30	322	29.05	191	6.34	296	23
16,901	251	4.6	254	8.7	401	2.72	2.41	(17.67)	—		63.60	66	19.86	78	29
4,658	461	7.7	96	22.2	51	4.03	2.77	0.31	29.24	23	78.24	46	29.45	15	29
23,200	189	4.3	278	11.7	331	4.85**	5.65	1.15	15.48	157	3.58	365	1.92	386	26
21,029†	211	2.9	367	8.5	405	2.02	3.27	0.54	14.10	178	(2.22)	405	17.11	102	28
41,400	104	1.1	445	3.9	451	1.43	3.36	0.42	13.03	202	4.56	360	6.85	285	22
27,400	163	2.8	368	11.6	329	5.55	4.98	0.21‡	38.74	10	11.10	310	9.22	238	28
8,700†	383	—		—		N.A.	N.A.	N.A.	—		—		—		20
26,856	168	7.5	102	16.9	163	4.08	4.31	0.90	16.32	137	17.64	268	10.66	209	27
21,000	212	1.8	418	4.5	444	1.41	2.97	1.12	2.33	383	16.79	273	14.22	139	28
27,000	166	6.9	121	12.6	309	2.65	2.71	1.30	7.38	331	(18.80)	460	0.81	405	42
24,795	180	8.0	82	17.6	139	4.26	1.84	0.69	19.97	81	80.14	44	25.46	32	45
18,000	237	4.4	269	21.6	56	N.A.	N.A.	N.A.	—		—		—		33
12,700†	304	13.1	18	18.1	129	8.02	8.56	3.97**	7.28	335	20.69	244	10.71	207	33
33,523	138	3.7	311	14.8	233	5.47	4.38	1.76	12.01	237	2.08	373	9.34	234	45

[19] Name changed from Kennecott Copper May 7, 1980

[20] Figure is for Kinney National Services

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
201	217	**Int'l Minerals & Chemical** (Northbrook, Ill.)[3]	1,789,600	1,848,600	163	145,900	133	881,300	161
202	224	**Oscar Mayer** (Madison, Wis.)[8]	1,774,269	609,768	338	20,373	411	298,510	329
203	229	**SmithKline** (Philadelphia)	1,771,938	1,554,411	184	307,994	55	987,220	140
204	313	**MAPCO** (Tulsa)	1,769,740	1,478,456	193	122,260	157	501,714	240
205	191	**National Distillers & Chemical** (New York)	1,764,650*	1,678,487	173	103,348	179	947,747	150
206	212	**Upjohn** (Kalamazoo, Mich.)	1,760,576	1,669,621	174	170,375	110	865,753	164
207	141	**Central Soya** (Fort Wayne, Ind.)[12]	1,744,445	658,540	322	34,758	332	298,486	330
208	198	**Ethyl** (Richmond, Va.)	1,740,627	1,208,177	219	89,682	196	664,969	201
209	220	**Schering-Plough** (Kenilworth, N.J.)	1,740,400	1,983,900	151	239,300	78	1,212,500	108
210	●	**Castle & Cooke** (Honolulu)	1,733,501	1,264,086	211	32,094	350	440,328	259
211	216	**Grumman** (Bethpage, N.Y.)	1,729,337	906,312	261	30,668	357	266,381	351
212	202	**Rohm & Haas** (Philadelphia)	1,725,304	1,240,456	214	93,744	190	703,124	190
213	214	**Anderson Clayton** (Houston)[3]	1,703,102	856,016	273	52,749	276	476,943	250
214	213	**Sterling Drug** (New York)	1,701,433	1,258,386	213	123,337	156	796,795	175
215	210	**Stauffer Chemical** (Westport, Conn.)	1,695,219	2,111,564	143	136,575	143	936,613	151
216	180	**Paccar** (Bellevue, Wash.)	1,673,708	772,588	296	81,088	214	540,473	227
217	192	**Cummins Engine** (Columbus, Ind.)	1,666,642	1,117,897	231	(10,987)	476	451,280	256
218	219	**A.E. Staley Manufacturing** (Decatur, Ill.)[7]	1,655,992	741,776	303	73,810	228	385,082	284
219	204	**Northrop** (Los Angeles)	1,655,400	1,233,700	216	86,100	203	482,400	249
220	227	**Joseph E. Seagram & Sons** (New York)[10,21]	1,635,102*	2,249,033	134	114,603**	169	1,031,264	127
221	254	**Clark Oil & Refining** (Milwaukee)	1,623,208	486,873	372	43,920	308	226,975	376
222	226	**Union Camp** (Wayne, N.J.)	1,574,825	1,652,060	175	165,132	114	989,587	138
223	263	**National Can** (Chicago)	1,550,950	816,050	284	55,010	264	309,271	320
224	255	**Baker International** (Orange, Calif.)[7]	1,547,444	1,401,889	200	138,627	140	732,041	184
225	218	**AMF** (White Plains, N.Y.)	1,534,030	979,321	251	56,593	261	447,622	258
226	194	**Clark Equipment** (Buchanan, Mich.)	1,533,653	1,042,330	242	53,506	272	619,474	211
227	221	**Corning Glass Works** (Corning, N.Y.)	1,529,670	1,499,624	192	114,720	168	912,707	159
228	206	**Crane** (New York)	1,527,600	1,004,117	248	42,596	313	395,912	279
229	208	**Allegheny Ludlum Industries** (Pittsburgh)	1,524,267	1,361,328	206	45,895	298	359,404	296
230	230	**General Signal** (Stamford, Conn.)	1,521,744	1,136,277	229	104,214	177	661,731	203
231	209	**Chromalloy American** (St. Louis)	1,518,004	979,076	252	44,441	307	395,405	280
232	262	**Cabot** (Boston)[7]	1,513,752	1,160,753	224	152,742	121	519,616	232
233	267	**Superior Oil** (Houston)	1,497,695	3,461,473	70	334,458	50	1,804,564	62
234	211	**U.S. Gypsum** (Chicago)	1,474,371	1,114,184	233	94,423	189	679,204	195
235	223	**Crown Cork & Seal** (Philadelphia)	1,459,790	873,056	268	73,196	231	542,378	226
236	228	**Polaroid** (Cambridge, Mass.)	1,450,785	1,394,567	201	85,406	206	970,854	142
237	239	**Phelps Dodge** (New York)	1,440,137	2,112,104	141	91,314	194	1,029,433	128
238	250	**Black & Decker Manufacturing** (Towson, Md.)[7]	1,438,299	1,183,219	222	90,056	195	573,601	220
239	235	**Heublein** (Farmington, Conn.)[3]	1,430,050*	1,047,019	240	77,411	222	496,358	244
240	215	**Evans Products** (Portland, Ore.)	1,423,464	887,866	267	41,361	317	300,513	327
241	233	**Lear Siegler** (Santa Monica, Calif.)[3]	1,423,397	841,067	279	65,722	244	351,295	299
242	244	**Air Products & Chemicals** (Allentown, Pa.)[7]	1,420,759	1,750,621	169	115,502	167	664,825	202
243	245	**Westvaco** (New York)[8]	1,409,911	1,150,611	226	87,858	198	629,001	210
244	234	**Sunbeam** (Chicago)[9]	1,406,429	892,927	264	49,060	291	397,440	277
245	275	**Blue Bell** (Greensboro, N.C.)[7]	1,397,760	868,774	270	67,910	241	400,844	276
246	271	**Whittaker** (Los Angeles)[8]	1,396,225	784,533	294	57,504	259	289,912	336
247	253	**Chesebrough-Pond's** (Greenwich, Conn.)	1,377,484	921,468	260	100,203	181	502,643	239
248	252	**Baxter Travenol Laboratories** (Deerfield, Ill.)	1,374,384	1,412,638	198	128,400	148	852,606	167
249	257	**Great Northern Nekoosa** (Stamford, Conn.)	1,373,300	1,210,200	218	99,100	182	690,400	192
250	238	**Timken** (Canton, Ohio)	1,338,499	1,028,443	245	92,632	193	762,767	178

● Indicates that a corporation was not among the 500 or the Second 500 in 1979.

*Does not include excise taxes; see the explanation of "sales" on page 344.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[21] Company is wholly owned by Seagram.

		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
EMPLOYEES		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
10,600	345	8.2	78	16.6	170	5.38	4.48	0.11	47.55	4	75.56	50	29.76	14	28
17,016	248	1.1	440	6.8	426	1.27	2.90	1.09	1.54	390	(18.09)	459	4.15	352	20
21,196	210	17.4	7	31.2	7	4.65	3.85	0.75	20.02	80	29.98	188	23.68	42	42
5,813	438	6.9	120	24.4	32	4.48	3.83	0.49	24.77	42	20.55	246	24.14	40	10
14,000	286	5.9	173	10.9	359	2.96	4.04	1.18	9.63	297	(0.45)	392	12.87	164	28
21,990	203	9.7	45	19.7	86	5.71	5.03	1.28	16.13	143	46.79	110	13.38	153	42
10,500	346	2.0	412	11.6	333	2.38	2.23	1.38	5.60	358	17.61	269	8.10	253	20
15,500†	266	5.2	218	13.5	282	4.49	4.94	1.61	10.80	262	(0.86)	394	13.28	155	28
27,400	164	13.7	13	19.7	81	4.45	4.12	0.98	16.34	136	38.47	144	5.02	323	42
37,800	118	1.9	415	7.3	422	1.12	1.19	0.81‡	3.29	377	(12.13)	447	5.47	311	20
28,000	160	1.8	424	11.5	337	2.35	2.06	2.64	(1.16)	403	33.52	167	9.29	236	41
13,218	291	5.4	199	13.3	287	7.26	7.96	1.99	13.82	185	0.85	383	3.55	367	28
17,300	247	3.1	354	11.1	354	4.00	3.54	0.92	15.83	151	(3.79)	416	12.65	170	20
25,946	172	7.2	107	15.5	210	2.04	1.85	0.99	7.50	330	18.25	264	1.68	391	42
13,354	290	8.1	80	14.6	238	3.11	3.10	0.65	16.95	120	10.22	324	15.10	122	28
11,474	330	4.8	235	15.0	222	9.83	14.57	1.78	18.64	92	34.42	159	22.02	56	40
21,214	209	—		—		(1.31)	6.84	3.20	—		3.39	368	2.37	382	40
4,336	467	4.5	268	19.2	100	5.27	1.86	0.79	20.90	67	31.91	176	22.74	48	20
30,200	152	5.2	216	17.8	132	6.04	6.35	1.35	16.16	140	51.49	96	28.14	19	41
11,000	340	7.0	114	11.1	351	N.A.	N.A.	N.A.	—		—		—		49
7,179	413	2.7	379	19.4	95	3.03	5.38	0.75	14.98	166	103.03	21	14.89	126	29
16,097	257	10.5	39	16.7	167	6.80	6.22	1.37	17.38	115	26.14	211	13.38	152	26
12,330†	311	3.5	327	17.8	135	5.48	4.95	1.98	10.72	265	1.10	380	2.60	380	34
21,734	205	9.0	60	18.9	107	2.11	1.63	0.20	26.57	31	83.18	39	32.08	10	45
26,000	170	3.7	313	12.6	308	2.76	2.59	2.05	3.02	380	58.94	76	3.56	366	47
16,992	250	3.5	330	8.6	402	4.18	8.03	2.92	3.65	373	(10.88)	444	3.44	368	45
28,800	156	7.5	101	12.6	311	6.26	7.05	2.27	10.68	268	10.35	321	1.08	399	32
18,010	235	2.8	372	10.8	360	4.20	5.39	0.66	20.33	76	42.18	124	25.69	30	33
27,500	162	3.0	357	12.8	303	4.11	7.30	1.23	12.82	212	55.39	84	15.09	123	33
26,016	169	6.8	126	15.7	200	4.01	3.52	0.91	15.99	146	22.34	231	14.44	135	38
22,000	202	2.9	360	11.2	346	2.84	3.60	1.50	6.59	348	(1.74)	401	6.92	283	34
7,600	404	10.1	41	29.4	11	4.88	2.28	0.56	24.17	46	104.80	20	19.02	87	33
5,253	450	22.3	3	18.5	115	13.22	9.52	0.60	36.24	11	50.54	103	19.83	79	10
18,800†	226	6.4	143	13.9	264	5.78	7.59	1.26**	16.45	134	12.39	301	8.02	256	32
15,202	272	5.0	221	13.5	281	4.98	4.65	1.26	14.73	168	(2.57)	409	4.58	342	34
17,454	245	5.9	171	8.8	396	2.60	1.10	1.86	3.41	376	(7.15)	435	(9.16)	455	38
15,220	271	6.3	147	8.9	395	4.20	5.06	5.59	(2.82)	406	26.87	207	4.85	331	33
20,800	215	6.3	150	15.7	203	2.14	2.25	0.56	14.35	176	(16.81)	457	1.93	385	45
27,100	165	5.4	200	15.6	205	3.62	3.19	1.45	9.58	299	0.95	382	(1.28)	428	49
17,550	243	2.9	363	13.8	272	2.96	4.65	0.84	13.42	195	(0.11)	390	5.82	306	37
24,077	184	4.6	257	18.7	109	4.23	4.50	1.53	10.70	266	79.62	45	16.58	107	40
15,800	262	8.1	79	17.4	147	4.07	3.45	0.57	21.72	60	16.34	276	15.93	113	28
15,610	263	6.2	151	14.0	261	5.20	4.61	1.08	17.02	117	20.12	252	13.38	154	26
28,800	157	3.5	331	12.3	317	3.30	3.22	1.29	9.85	292	3.55	366	1.25	397	36
35,000	127	4.9	234	16.9	160	5.40	5.36	0.95	18.98	87	(14.85)	452	11.47	195	23
16,600	254	4.1	288	19.8	79	3.90	3.28	(0.48)‡	—		59.48	74	15.51	119	37
20,900	214	7.3	106	19.9	76	3.10	2.56	0.88	13.42	196	33.67	166	5.21	319	43
32,232	143	9.3	51	15.1	221	3.72	3.29	0.52	21.75	59	12.33	302	8.06	255	42
12,400†	310	7.2	109	14.4	247	6.16	5.65	1.37	16.22	139	25.17	216	12.69	169	26
22,218	200	6.9	119	12.1	321	8.26	9.14	2.69	11.87	242	25.00	217	12.18	181	45

THE 500 LARGEST INDUSTRIALS

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
251	256	**Hershey Foods** (Hershey, Pa.)	1,335,289	684,472	318	62,055	250	361,550	292
252	231	**Armstrong World Industries** (Lancaster, Pa.)[22]	1,322,967	891,513	266	48,566	292	588,559	215
253	222	**Geo. A. Hormel** (Austin, Minn.)[8]	1,321,966	355,853	442	32,758	345	208,297	393
254	290	**Harris** (Melbourne, Fla.)[3]	1,300,932	1,139,784	228	79,682	217	453,023	254
255	298	**Wheelabrator-Frye** (Hampton, N.H.)	1,299,673	1,930,636	155	55,300	263	706,249	189
256	241	**MCA** (Universal City, Calif.)	1,297,104	1,390,579	202	137,647	141	919,366	157
257	273	**Amstar** (New York)[3]	1,284,988	606,931	339	30,853	355	304,099	324
258	246	**Commonwealth Oil Refining** (San Antonio)	1,284,442	613,204	337	(3,506)**	471	149,741	447
259	237	**Diamond International** (New York)	1,282,604	943,305	257	40,588	322	599,955	213
260	261	**Norton** (Worcester, Mass.)	1,281,798	953,356	256	86,688	200	511,780	235
261	258	**St. Joe Minerals** (New York)	1,279,083	1,764,891	168	117,082	163	987,349	139
262	274	**Crown Central Petroleum** (Baltimore)	1,266,898	546,440	353	19,147	419	193,339	408
263	276	**Avnet** (New York)[3]	1,266,804	619,040	336	71,702	234	371,143	291
264	251	**Sherwin-Williams** (Cleveland)	1,263,721	768,592	298	24,864	386	286,876	337
265	277	**Pitney Bowes** (Stamford, Conn.)	1,257,294	1,094,402	235	75,136	225	438,224	260
266	282	**West Point-Pepperell** (West Point, Ga.)[12]	1,245,569	580,665	344	42,505	314	323,406	310
267	279	**CF Industries** (Long Grove, Ill.)	1,233,107	1,189,392	220	N.A.[13]		484,486	247
268	247	**GAF** (New York)	1,230,623	698,283	314	(233,476)	488	122,347	463
269	259	**Brown Group** (St. Louis)[8]	1,220,884	538,578	356	44,970	304	302,657	326
270	272	**Gannett** (Rochester, N.Y.)	1,214,983	1,211,740	217	151,985	122	765,983	177
271	266	**Richardson-Merrell** (Wilton, Conn.)[3]	1,211,651	956,205	255	84,209	208	554,592	222
272	326	**Hughes Tool** (Houston)	1,206,155	1,390,281	203	132,189	145	922,866	152
273	242	**Brunswick** (Skokie, Ill.)	1,199,709	924,331	259	23,928	391	450,352	257
274	236	**Louisiana-Pacific** (Portland, Ore.)	1,195,590	1,114,420	232	60,010	254	687,340	193
275	260	**GK Technologies** (Greenwich, Conn.)	1,189,666	732,735	308	70,154	236	303,357	325
276	268	**Pennwalt** (Philadelphia)	1,188,702	830,045	281	43,291	310	392,647	282
277	270	**Zenith Radio** (Glenview, Ill.)	1,185,900	655,400	324	26,400	379	291,000	333
278	269	**Hammermill Paper** (Erie, Pa.)	1,182,837	713,827	309	40,264	323	328,536	305
279	294	**Witco Chemical** (New York)	1,175,695	630,984	331	40,954	319	266,417	350
280	249	**Libbey-Owens-Ford** (Toledo)	1,159,863	903,841	262	28,831	368	509,992	236
281	281	**AMP** (Harrisburg, Pa.)	1,155,382	929,192	258	131,274	146	577,744	219
282	240	**U.S. Industries** (New York)	1,144,644	824,177	283	21,126	404	517,315	233
283	285	**Campbell Taggart** (Dallas)	1,113,147	443,601	391	36,247	330	222,681	382
284	296	**R.R. Donnelley & Sons** (Chicago)	1,111,258	771,749	297	68,961	238	499,046	241
285	291	**Knight-Ridder Newspapers** (Miami)	1,098,537	862,361	272	92,858	192	597,407	214
286	329	**Texasgulf** (Stamford, Conn.)	1,090,135	2,010,383	150	325,551	51	1,167,578	112
287	243	**Wheeling-Pittsburgh Steel** (Pittsburgh)	1,084,052	983,372	250	14,675	431	409,938	269
288	284	**Rexnord** (Milwaukee)[8]	1,083,690	794,907	290	41,549	316	397,431	278
289	288	**G.D. Searle** (Skokie, Ill.)	1,081,558	1,129,998	230	98,341**	183	548,922	224
290	302	**International Multifoods** (Minneapolis)[6]	1,079,057	432,495	397	18,779	421	185,853	416
291	299	**Harsco** (Wormleysburg, Pa.)	1,063,226	658,198	323	49,712	288	360,191	295
292	265	**Interlake** (Oak Brook, Ill.)	1,055,883	703,618	312	13,818	434	336,707	303
293	283	**Akzona** (Asheville, N.C.)	1,054,015	846,708	274	4,877	454	319,139	311
294	289	**ACF Industries** (New York)	1,044,641	1,109,488	234	44,756	306	376,778	287
295	297	**Lever Brothers** (New York)[24]	1,036,600	446,100	387	(16,900)	479	221,000	385
296	316	**Parker-Hannifin** (Cleveland)[3]	1,022,376	653,693	325	55,974	262	337,558	302
297	295	**Ex-Cell-O** (Troy, Mich.)[17]	1,020,677	705,410	310	50,404	285	384,651	285
298	331	**Louisiana Land & Exploration** (New Orleans)	1,020,600	1,142,900	227	180,200	106	745,400	182
299	264	**Airco** (Montvale N.J.)[7,25]	1,010,867	1,043,706	241	45,061	302	607,914	212
300	307	**McGraw-Hill** (New York)	1,000,146	785,502	293	86,356	202	437,857	261

N.A. Not available

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[22] Name changed from Armstrong Cork May 15, 1980

[23] Figure is for Equity

[24] Company is wholly owned by Unilever

[25] Company is wholly owned by BOC Financial

		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
EMPLOYEES		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
12,430	309	4.6	255	17.2	154	4.38	3.78	1.58	10.73	264	1.52	377	4.74	335	20
22,645†	196	3.7	316	8.3	409	1.94	2.58	0.67	11.22	255	(6.97)	433	(4.03)	443	22
8,108	393	2.5	389	15.7	201	3.41	3.19	1.04	12.61	217	(5.31)	424	9.34	235	20
24,100	183	6.1	157	17.6	141	2.63	2.45	0.82	12.36	227	60.86	73	17.48	97	36
25,000	179	4.3	279	7.8	415	4.31	3.72	(1.77)‡^{23}	—		61.28	71	17.02	104	45
18,000	236	10.6	36	15.0	223	5.83	7.65	0.61	25.32	40	(9.41)	438	21.29	60	48
7,974†	397	2.4	392	10.1	366	3.32	2.38	1.63	7.37	332	26.62	209	9.72	227	20
1,474	493	—		—		(0.34)**	5.32	1.20	—		(62.63)	479	(12.46)	460	29
18,100	232	3.2	352	6.8	427	2.68	4.58	2.68	0.00	400	(6.49)	431	4.81	332	26
25,300	174	6.8	127	16.9	161	5.25	4.89	1.05	17.46	111	86.82	36	21.34	59	32
13,000	296	9.2	55	11.9	328	2.60	1.73	0.78	12.79	213	93.10	30	22.85	46	10
1,500	492	1.5	431	9.9	373	2.82	12.61	1.15	9.38	302	(17.56)	458	17.58	96	29
12,000	317	5.7	182	19.3	97	4.57	3.50	0.46‡	25.81	38	101.54	23	24.19	38	36
16,808	253	2.0	413	8.7	400	4.88	1.61	1.26	14.50	172	37.86	148	1.49	394	28
26,969	167	6.0	165	17.1	155	4.31	4.02	0.91	16.83	124	10.78	315	6.78	286	44
23,300	188	3.4	337	13.1	292	9.32	5.66	1.82	17.74	107	28.18	197	11.67	190	22
2,624	485	—		—		N.A.	N.A.	N.A.	—		—		—		28
13,000	294	—		—		(17.57)	1.83	0.80**	—		39.64	140	5.44	313	28
25,000	175	3.7	315	14.9	229	6.16	5.72	2.50	9.44	301	29.51	189	5.77	307	31
23,000	192	12.5	19	19.8	78	2.81	2.50	0.54	17.93	104	18.93	262	14.76	129	27
15,000	275	6.9	117	15.2	217	3.56	2.66	1.36	10.10	287	56.61	77	4.47	346	42
15,300	268	11.0	33	14.3	249	5.27	3.88	N.A.	—		87.69	34	—		45
25,000	176	2.0	411	5.3	440	1.01	2.39	0.99	0.20	399	22.39	230	1.34	396	47
15,000	277	5.0	220	8.7	398	2.02	3.57	N.A.	—		14.29	291	—		26
23,000	191	5.9	170	23.1	38	5.33	4.75	1.15	16.57	131	54.51	87	12.31	176	33
12,760	303	3.6	321	11.0	356	4.20	5.01	1.16	13.73	188	(5.27)	423	6.40	293	28
25,000	178	2.2	401	9.1	389	1.40	1.01	1.30	0.74	393	106.18	18	(0.63)	421	36
12,250	313	3.4	339	12.3	318	5.04	4.47	1.56	12.44	224	35.95	155	7.20	275	26
6,900	423	3.5	332	15.4	212	4.50	4.83	1.30	13.22	199	1.65	376	11.32	198	29
17,817	240	2.5	387	5.7	437	2.17	4.80	1.45	4.11	368	1.33	378	1.88	387	32
18,650	228	11.4	28	22.7	42	3.65	3.36	0.67	18.47	94	31.37	180	12.13	184	36
20,700	216	1.8	416	4.1	449	0.74	1.85	1.95	(9.23)	414	3.04	369	(1.26)	427	45
22,911	195	3.3	345	16.3	179	3.27	2.97	0.94	13.28	198	(4.70)	422	12.20	180	20
14,800†	278	6.2	153	13.8	270	3.70	3.42	1.19	12.01	236	30.99	181	9.14	240	27
15,364	267	8.5	72	15.5	208	2.87	2.69	0.66	15.83	150	10.00	327	11.44	196	27
6,480	428	29.9	1	27.9	14	9.70	4.05	1.51	20.44	74	66.91	60	17.71	95	10
12,143†	314	1.4	435	3.6	453	2.85	12.16	0.49	19.25	84	22.62	228	7.67	262	33
17,678	241	3.8	305	10.5	362	2.09	2.91	0.92	8.55	318	16.04	278	11.56	192	45
18,200	231	9.1	57	17.9	130	1.85**	1.66	0.77	9.16	306	45.79	112	7.39	269	42
8,549	385	1.7	426	10.1	368	2.31	3.06	1.12	7.51	328	10.47	318	11.18	199	20
16,000	258	4.7	251	13.8	271	4.94	5.27	1.60	11.93	239	14.00	292	15.42	120	34
10,842	343	1.3	436	4.1	448	2.29	6.66	1.61	3.59	375	21.51	237	13.75	148	33
15,910†	260	0.5	460	1.5	462	0.40	2.10	2.25	(15.86)	416	5.38	352	(4.09)	444	28
12,928	297	4.3	277	11.9	327	5.02	5.44	2.20	8.60	316	41.42	128	10.23	217	37
6,400	429	—		—		N.A.	N.A.	N.A.	—		—		—		43
20,050	223	5.5	195	16.6	169	3.80	3.75	1.40	10.50	277	20.57	245	11.48	194	34
16,831†	252	4.9	225	13.1	295	4.91	5.31	1.82	10.43	278	1.79	374	11.43	197	45
2,995	483	17.7	6	24.2	33	4.74	4.45	1.47	12.42	226	11.19	309	7.96	257	10
N.A.		4.5	267	7.4	420	N.A.	N.A.	N.A.	—		—		—		28
14,226	282	8.6	66	19.7	82	3.48	3.10	0.90**	14.48	174	68.34	57	14.46	133	27

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
301	301	**Cessna Aircraft** (Wichita)[7]	1,000,061	583,026	343	28,122	371	290,014	335
302	320	**Square D** (Palatine, Ill.)	998,973	741,189	305	83,043	211	408,200	270
303	347	**Perkin-Elmer** (Norwalk, Conn.)[10]	996,149	741,222	304	68,245	240	381,090	286
304	●	**GATX** (Chicago)	992,671	2,412,579	118	66,012	243	526,232	230
305	292	**Universal Leaf Tobacco** (Richmond, Va.)[3]	992,373	402,062	418	28,368	370	160,575	440
306	278	**Johnson Controls** (Milwaukee)[7]	989,106	675,333	320	33,693	339	328,065	306
307	353	**National Semiconductor** (Santa Clara, Calif.)[14]	980,363	561,355	347	52,339	278	225,904	380
308	280	**National Gypsum** (Dallas)	979,653	802,982	288	60,665	253	497,452	243
309	304	**Cyclops** (Pittsburgh)	978,976	457,583	380	20,407	410	176,807	427
310	315	**Federal Co.** (Memphis)[14]	974,764	283,084	477	9,653	442	155,866	435
311	332	**Tektronix** (Beaverton, Ore.)[14]	971,306	841,693	276	85,072	207	483,338	248
312	309	**Alumax** (San Mateo, Calif.)	968,436	1,048,684	239	104,080	178	552,995	223
313	322	**Becton Dickinson** (Paramus, N.J.)[7]	942,031	841,441	277	64,964	246	502,902	237
314	312	**Willamette Industries** (Portland, Ore.)	940,200	802,879	289	63,352	247	426,009	267
315	310	**Stanley Works** (New Britain, Conn.)	939,790	626,285	333	50,370	286	360,289	294
316	319	**Springs Mills** (Fort Mill, S.C.)	937,650	513,319	366	10,602	441	336,260	304
317	335	**Joy Manufacturing** (Pittsburgh)[7]	934,329	735,594	307	59,680	255	431,476	265
318	321	**Consolidated Aluminum** (St. Louis)	928,397	517,033	364	19,870	414	210,733	389
319	317	**Sundstrand** (Rockford, Ill.)	926,026	786,694	292	78,934	219	403,616	275
320	293	**Kaiser Steel** (Oakland, Calif.)	917,966	1,360,434	207	191,469	69	693,524	191
321	314	**Amsted Industries** (Chicago)[7]	914,868	453,321	383	71,200	235	353,409	298
322	336	**AM International** (Los Angeles)[12]	909,647	686,132	317	5,800**	451	231,689	371
323	287	**Lone Star Industries** (Greenwich, Conn.)	909,315	1,051,177	238	59,232	256	404,388	274
324	327	**Midland-Ross** (Cleveland)	908,437	680,378	319	43,812	309	281,085	343
325	354	**Fairchild Industries** (Germantown, Md.)	906,230	808,294	287	54,531	269	188,926	412
326	351	**Lubrizol** (Wickliffe, Ohio)	902,312	651,137 –	326	111,511	171	452,787	255
327	300	**Scovill** (Waterbury, Conn.)	900,401	553,572	349	24,011	390	217,379	386
328	305	**Jos. Schlitz Brewing** (Milwaukee)	896,667	638,963	328	26,986	376	325,535	308
329	344	**Adolph Coors** (Golden, Colo.)	887,897	894,385	263	64,977	245	712,100	188
330	378	**NVF** (Yorklyn, Del.)	885,934	1,273,027	210	14,461	432	240,929	365
331	308	**Reichhold Chemicals** (White Plains, N.Y.)	885,059	428,223	403	16,114	428	172,414	429
332	311	**Newmont Mining** (New York)	881,598	1,447,170	195	197,372	92	922,768	153
333	303	**CertainTeed** (Valley Forge, Pa.)	868,227	693,503	315	273	468	315,450	317
334	391	**U.S. Filter** (New York)	865,029	764,818	300	27,700	373	283,968	340
335	334	**Anchor Hocking** (Lancaster, Ohio)	857,511	559,139	348	28,795	369	292,796	332
336	368	**Intel** (Santa Clara, Calif.)	854,561	767,168	299	96,741	186	432,860	264
337	371	**Twentieth Century-Fox Film** (Los Angeles)	847,258	753,913	301	54,567	268	286,025	338
338	348	**Morton-Norwich Products** (Chicago)[3]	846,601	621,288	335	47,730	295	348,113	301
339	●	**Genesco** (Nashville)[12]	845,388	326,414	459	3,453	460	52,136	493
340	379	**ConAgra** (Omaha)[14]	842,905	347,548	451	18,515	422	102,237	474
341	423	**Pacific Resources** (Honolulu)	836,960	349,147	449	20,676	406	93,142	478
342	366	**Dover** (New York)	835,167	474,945	376	73,213	229	317,997	314
343	340	**Cincinnati Milacron** (Cincinnati)	834,702	626,696	332	75,644	224	316,145	315
344	337	**General Host** (Stamford, Conn.)	832,673	274,911	478	415**	466	64,026	488
345	360	**Quaker State Oil Refining** (Oil City, Pa.)	832,492	498,109	370	25,775	382	229,716	373
346	339	**Hoover** (North Canton, Ohio)	830,465	532,367	359	30,048	361	247,458	361
347	382	**Belco Petroleum** (New York)	829,951	1,001,303	249	77,893	221	418,345	268
348	324	**Potlatch** (San Francisco)	819,593	1,021,644	246	49,407	289	515,951	234
349	449	**Mattel** (Hawthorne, Calif.)[27]	805,064	547,718	352	30,553	358	207,674	394
350	246	**White Motor** (Farmington Hills, Mich.)	800,000[28]	N.A.		N.A.		N.A.	

N.A. Not available

● Indicates that a corporation was not among the 500 or the Second 500 in 1979

** Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344

† Average for the year; see the reference to "employees" on page 344

‡ Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344

[28] Figure is for Sick

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
18,024†	234	2.8	369	9.7	377	1.51	2.47	0.57	10.23	284	11.70	306	17.14	101	41
22,000	201	8.3	76	20.3	70	3.41	3.04	1.18	11.20	256	31.61	178	7.24	274	36
15,290	269	6.9	124	17.9	131	3.34	2.53	0.62	18.34	96	67.19	58	17.32	99	38
9,600	365	6.6	132	12.5	312	5.10	5.53	2.83	6.07	354	7.00	344	3.75	360	37
14,100†	284	2.9	366	17.7	137	3.20	2.79	0.76	15.46	158	80.75	42	20.49	69	21
18,500	229	3.4	338	10.3	365	2.41	3.58	1.06	8.56	317	(1.26)	398	12.76	167	36
40,263	110	5.3	206	23.2	37	2.58	1.71	0.13**	34.82	13	74.37	53	33.27	7	36
13,417	289	6.2	154	12.2	319	3.66	4.87	0.84	15.86	149	6.14	350	6.25	298	32
8,408	387	2.1	408	11.5	335	6.14	1.35	0.31	34.80	14	15.77	279	10.89	204	33
12,000	320	1.0	447	5.8	434	2.37	8.15	1.25	6.61	347	46.48	111	22.35	54	20
23,890	186	8.8	63	17.6	140	4.66	4.28	0.88	18.14	100	3.52	367	16.83	105	38
7,136	414	10.7	35	18.8	108	N.A.	N.A.	N.A.	—		—		—		33
20,600	217	6.9	122	12.9	300	3.14	3.01	1.08	11.26	254	56.44	79	4.85	330	38
8,530	386	6.7	128	14.9	228	4.28	4.58	0.81	18.11	101	32.13	175	9.85	223	26
17,512†	244	5.4	20[illegible]	14.0	260	1.94	2.13	0.57	13.03	203	(13.24)	451	12.25	178	34
22,600†	197	1.1	442	3.2	456	1.20	3.98	0.72	5.24	360	(0.95)	396	6.99	282	22
13,200	292	6.4	145	13.8	267	4.58	3.82	1.43	12.34	229	87.55	35	11.99	187	45
7,936	399	2.1	404	9.4	382	N.A.	N.A.	N.A.	—		—		—		33
15,600	264	8.5	71	19.6	89	4.57	4.03	0.51	24.52	44	52.63	93	22.81	47	41
11,031†	339	20.9	5	27.6	15	27.16	6.79**	2.66**	26.16	35	50.46	104	5.09	321	33
11,500	329	7.8	89	20.1	73	6.60	5.88	0.73	24.63	43	19.04	260	25.56	31	33
20,300	221	0.6	456	2.5	458	0.69**	1.38**	1.95	(9.87)	415	(5.81)	428	(3.05)	441	44
7,272	411	6.5	136	14.6	235	5.25	5.95	1.72	11.81	246	17.99	266	7.82	259	32
13,500	288	4.8	238	15.6	206	3.70	3.51	0.19‡	34.57	15	(8.21)	437	12.46	172	45
18,700	227	6.0	163	28.9	12	4.02	3.22	0.56	21.79	58	54.38	88	29.85	12	41
4,155	471	12.4	21	24.6	30	5.74	4.66	1.09	18.07	102	22.98	224	8.14	252	28
20,592	218	2.7	381	11.0	355	2.56	3.46	1.54	5.21	362	(1.30)	399	4.28	349	36
6,100	431	3.0	358	8.3	408	0.93	(1.74)	1.01	(0.82)	402	(5.71)	426	(7.05)	452	49
9,650	364	7.3	105	9.1	387	1.86	1.95	N.A.	—		22.09	232	—		49
10,300	352	1.6	427	6.0	432	0.16	0.29	0.05	12.33	230	(19.33)	461	41.65	2	33
5,571	442	1.8	420	9.3	385	1.90	1.34	0.47	14.99	165	5.15	355	5.49	310	28
11,900†	323	22.4	2	21.4	58	7.64	7.05	3.00	9.80	293	22.48	229	10.91	202	33
9,400	370	—	469	0.1	469	(0.31)	1.30	0.02‡	—		(12.53)	448	4.62	339	32
11,960	321	3.2	348	9.8	376	2.63	2.01	(1.48)‡[26]	—		97.71	27	6.39	295	45
17,600	242	3.4	341	9.8	374	2.81	3.09	1.81	4.50	365	23.40	223	3.69	362	32
15,900	261	11.3	29	22.3	46	2.21	1.79	N.A.	—		19.26	257	—		36
7,025†	416	6.4	141	19.1	102	4.89	5.19	(6.77)	—		66.44	61	26.72	25	48
11,000	341	5.6	184	13.7	274	3.52	3.40	1.82	6.82	342	(16.49)	456	1.07	400	28
21,800†	204	0.4	461	6.6	428	0.02	0.22	1.65‡	(35.68)	422	37.45	152	(13.44)	462	23
7,022	417	2.2	402	18.1	128	3.10	3.55	1.01	11.87	243	171.78	2	25.40	33	20
707	497	2.5	390	22.2	50	1.70	1.19	0.30	18.94	89	23.99	221	10.21	218	29
12,564	307	8.8	62	23.0	39	4.10	3.20	0.64	20.41	75	100.63	25	22.69	49	34
13,750†	287	9.1	58	23.9	35	3.35	2.47	.70**	16.95	119	72.19	54	21.47	58	45
10,000†	358	—	467	0.6	466	0.14**	12.16	(4.64)‡	—		(3.82)	417	9.80	224	20
4,960	456	3.1	355	11.2	347	1.19	1.57	0.67	5.91	356	33.92	165	7.60	264	29
20,081	222	3.6	322	12.1	322	2.46	3.13	1.36	6.11	353	8.99	335	1.53	393	36
2,037	490	9.4	50	18.6	112	3.35	3.41	0.09‡	43.58	7	65.15	64	22.39	53	29
10,214	353	6.0	162	9.6	378	3.25	4.69	0.75	15.79	153	30.30	184	14.44	136	26
16,000†	259	3.8	309	14.7	234	1.38	1.54	0.91	4.25	366	42.62	123	(10.57)	457	47
N.A.		—		—		N.A.	1.43	(3.12)	—		(40.35)	476	(14.12)	464	40

[27] Figures are for fiscal year ending January 31, 1980.

[28] FORTUNE estimate

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
351	325	**Champion Spark Plug** (Toledo)	799,800	636,200	329	36,900	326	405,900	271
352	357	**Thomas J. Lipton** (Englewood Cliffs, N.J.)[24]	798,246	444,724	389	42,874	312	271,115	347
353	355	**National Service Industries** (Atlanta)[12]	795,723	367,998	436	45,154	301	243,888	363
354	352	**Sybron** (Rochester, N.Y.)	792,904	551,902	351	23,446	394	250,302	357
355	370	**Trane** (La Crosse, Wis.)	787,303	503,655	369	33,777‡	338	251,551	355
356	427	**Smith International** (Newport Beach, Calif.)	784,130	824,442	282	79,072	218	492,357	246
357	323	**Sperry & Hutchinson** (New York)	772,275	841,249	278	21,018	405	258,462	353
358	346	**Memorex** (Santa Clara, Calif.)	768,661	588,680	341	(28,978)	483	143,927	453
359	349	**Masco** (Taylor, Mich.)	766,440	862,387	271	77,180	223	405,591	272
360	385	**Handy & Harman** (New York)	760,957	404,427	414	27,748	372	111,410	470
361	361	**A-T-O** (Willoughby, Ohio)	759,562	485,445	374	20,605	408	161,568	438
362	373	**General Cinema** (Chestnut Hill, Mass.)[8]	759,400	441,796	392	29,931	362	168,542	434
363	333	**Bangor Punta** (Greenwich, Conn.)[7]	758,947	529,786	361	33,835	337	207,229	398
364	410	**Arcata** (Menlo Park, Calif.)[3]	755,688	689,859	316	33,353	342	243,239	364
365	389	**Monfort of Colorado** (Greeley, Colo.)[12]	755,425	170,130	493	(23,863)	482	20,726	498
366	341	**Vulcan Materials** (Birmingham, Ala.)	753,980	592,699	340	69,859	237	350,495	300
367	520	**Crouse-Hinds** (Syracuse, N.Y.)	753,566	401,174	419	42,307	315	249,015	359
368	306	**Tecumseh Products** (Tecumseh, Mich.)	753,072	382,863	427	40,956	318	308,453	321
369	330	**Revere Copper & Brass** (New York)	748,079	432,810	396	21,865	400	180,976	419
370	364	**Cluett Peabody** (New York)	745,853	426,433	405	15,602	429	208,810	392
371	342	**Mohasco** (Amsterdam, N.Y.)	745,213	423,952	406	1,786	464	187,755	414
372	336	**Southwest Forest Industries** (Phoenix)	737,938	743,431	302	32,263	348	236,647	366
373	400	**Peavey** (Minneapolis)[10]	734,788	455,755	382	22,624	397	157,521	442
374	375	**New York Times** (New York)	733,237	449,546	385	40,609	321	255,357	354
375	363	**Cone Mills** (Greensboro, N.C.)	729,885	417,446	409	51,246	281	324,868	309
376	418	**G. Heileman Brewing** (La Crosse, Wis.)	722,021	291,365	473	34,083	333	127,052	459
377	367	**Federal-Mogul** (Southfield, Mich.)	721,200	565,151	346	36,731	327	247,475	360
378	374	**Pabst Brewing** (Milwaukee)	719,902*	430,334	400	12,642	436	281,432	342
379	425	**General Instrument** (New York)[6]	718,104	513,030	367	51,130	282	296,258	331
380	345	**Dayco** (Dayton, Ohio)[8]	716,402	456,950	381	8,642	443	145,729	451
381	376	**Saxon Industries** (New York)	709,601	486,617	373	5,373	452	124,649	460
382	405	**Briggs & Stratton** (Wauwatosa, Wis.)[3]	708,562	341,484	453	49,098	290	233,915	369
383	420	**Ball** (Muncie, Ind.)	698,794	431,525	399	24,402	389	179,165	422
384	409	**Brockway Glass** (Brockway, Pa.)	698,456	431,946	398	17,927	423	207,587	397
385	426	**Cameron Iron Works** (Houston)[1]	697,352	810,786	286	78,259	220	394,678	281
386	404	**Ferro** (Cleveland)	695,580	433,610	395	29,019	367	223,735	381
387	359	**Signode** (Glenview, Ill.)	695,504	478,078	375	38,564	324	311,246	319
388	318	**A.O. Smith** (Milwaukee)	693,684	427,637	404	(1,703)	470	211,176	388
389	390	**Columbia Pictures Industries** (New York)[3]	691,814	488,504	371	44,907	305	228,136	375
390	343	**Outboard Marine** (Waukegan, Ill.)[7]	687,398	542,193	355	2,344	461	273,264	346
391	399	**Miles Laboratories** (Elkhart, Ind.)[29]	686,117	635,925	330	7,433**	446	318,329	313
392	401	**Peabody International** (Stamford, Conn.)[7]	683,852	449,513	386	17,554	424	197,027	402
393	403	**Hyster** (Portland, Ore.)[27]	683,283	443,949	390	63,105	249	274,228	345
394	387	**Purex Industries** (Lakewood, Calif.)[3]	683,272	373,882	432	26,497	377	201,643	400
395	383	**CBI Industries** (Oak Brook, Ill.)	682,261	780,267	295	68,455	239	354,915	297
396	392	**Dow Corning** (Midland, Mich.)	681,518	699,645	313	73,871	227	376,300	288
397	377	**Bemis** (Minneapolis)	679,327	369,396	435	14,353	433	171,875	431
398	517	**Bally Manufacturing** (Chicago)	679,113	658,653	321	53,469	273	312,052	318
399	388	**Thiokol** (Newtown, Pa.)	675,141	439,045	394	32,367	347	226,494	378
400	386	**Hart Schaffner & Marx** (Chicago)[17]	674,888	402,235	417	22,525	398	226,812	377

N.A. Not available

*Does not include excise taxes; see the explanation of "sales" on page 344.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[29] Company is wholly owned by Bayer AG.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
15,000	274	4.6	258	9.1	388	0.96	1.49	0.80	1.84	389	(3.20)	413	4.18	350	36
6,018†	436	5.4	203	15.8	197	N.A.	N.A.	N.A.	—		—		—		20
18,400	230	5.7	181	18.5	117	3.54	3.12	1.35	10.12	286	15.08	285	4.99	324	36
15,169†	273	3.0	359	9.4	384	2.15	2.05	1.01‡	7.85	325	(0.25)	391	(1.68)	431	38
11,600	327	4.3	276	13.4	285	3.32‡	2.70	1.61	7.51	329	20.73	243	1.00	401	45
10,484	349	10.1	42	16.1	188	3.73	2.65	0.25	31.03	18	86.36	37	33.21	8	45
12,836	298	2.7	376	8.1	413	2.15	3.03	2.85	(2.78)	405	87.97	33	3.08	374	22
11,300	334	—		—		(4.42)	3.91	0.83	—		(28.69)	472	(13.91)	463	44
9,400	373	10.1	43	19.0	105	3.03	2.80	0.38	23.07	51	21.62	235	11.52	193	34
4,458	463	3.6	318	24.9	27	2.04	1.02	0.20	26.14	36	53.66	90	29.19	16	33
16,300	255	2.7	377	12.8	305	3.20	2.70	0.68	16.75	127	105.76	19	13.19	160	45
12,800	300	3.9	298	17.8	136	2.72	2.41	0.73	14.06	180	12.54	299	9.72	226	49
11,900	322	4.5	266	16.3	178	6.82	5.95	(0.46)‡	—		37.29	153	16.36	109	41
14,200	283	4.4	271	13.7	273	4.25	6.23**	1.46	11.28	253	26.03	213	6.59	290	27
2,360	487	—		—		(4.82)	(0.04)	0.36	—		(40.28)	475	(3.97)	442	20
6,043†	435	9.3	53	19.9	77	6.04	5.48	0.98	19.94	82	34.10	161	20.31	71	10
12,500	308	5.6	185	17.0	159	2.50	2.24	0.47	18.19	98	108.95	14	26.93	23	36
8,929	379	5.4	197	13.3	291	7.49	10.04	3.84	6.91	340	(6.13)	430	7.20	276	45
6,860†	424	2.9	361	12.1	323	3.82	4.50	1.62	3.96	307	6.55	348	(1.33)	429	33
20,941	213	2.1	407	7.5	417	1.60	1.78	1.03	4.50	364	4.45	361	(2.56)	437	23
15,517	265	0.2	464	1.0	464	0.26	1.16	1.66	(16.92)	418	17.53	270	(4.10)	445	25
7,600	405	4.4	273	13.6	275	3.21	3.53	1.14**	10.91	261	53.03	92	5.39	315	26
6,073	434	3.1	356	14.4	245	4.02	3.14	0.71**	18.93	90	45.16	116	—		20
7,000	418	5.5	190	15.9	194	3.37	3.06	1.10	11.85	244	51.12	99	8.85	244	27
12,800	299	7.0	113	15.8	199	8.88	7.54	0.76	27.87	26	15.11	284	19.82	80	22
5,600	440	4.8	240	27.3	16	3.98	3.15	0.61	20.63	71	24.01	220	16.53	108	49
14,530	279	5.1	219	14.8	230	2.88	3.31	1.05	10.62	270	37.49	151	12.56	171	40
4,916	458	1.8	425	4.5	445	1.55	1.12	2.44	(4.44)	407	30.04	187	(7.96)	454	49
28,300	158	7.1	112	17.3	151	5.90	4.22	0.40	30.88	20	83.63	38	21.02	61	36
11,400	332	1.2	438	5.9	433	1.51	3.87	1.44	0.48	396	(13.14)	450	3.57	365	30
7,268	410	0.8	454	4.3	446	0.76	0.92	1.48	(6.45)	410	(21.11)	463	(10.01)	456	26
11,449†	331	6.9	118	21.0	63	3.39	3.35	1.00	12.98	205	(5.77)	427	9.60	230	45
11,000	342	3.5	329	13.6	278	4.77	4.75	N.A.	—		22.02	233	—		34
12,000†	318	2.6	384	8.6	403	2.42	2.22	1.95	2.18	384	8.14	339	0.68	411	32
10,052	355	11.2	30	19.8	80	2.61	1.97	0.25	26.44	32	145.39	5	—		45
9,460†	368	4.2	284	13.0	297	3.77	4.07	0.95	14.78	167	6.95	345	8.84	245	28
7,000	419	5.5	188	12.4	315	4.86	5.56	1.91	9.79	294	12.73	297	5.94	304	34
9,914†	360	—		—		(0.35)	4.79‡	1.91**	—		(10.88)	443	0.88	403	40
3,500	478	6.5	138	19.7	85	4.50	4.01	0.96	16.71	129	28.64	194	14.82	128	48
9,400	372	0.3	463	0.9	465	0.28	2.00	1.66	(16.30)	417	(22.19)	464	(2.74)	438	47
9,286	376	1.1	444	2.3	459	N.A.	N.A.	N.A.	—		—		—		42
9,700	363	2.6	383	8.9	393	1.66	2.57	0.54	11.88	241	109.15	13	13.23	158	45
8,396	389	9.2	54	23.0	40	10.48	9.38	2.12	17.33	116	10.31	322	15.39	121	45
7,200	412	3.9	304	13.1	293	2.34	2.27	0.34‡	21.28	63	5.22	354	4.61	340	43
12,000	319	10.0	44	19.3	98	3.81	3.20	0.75	17.65	109	70.85	55	26.76	24	34
5,312	446	10.8	34	19.6	87	N.A.	N.A.	N.A.	—		—		—		28
8,878	381	2.1	405	8.4	407	3.85	5.86	(0.20)‡	—		3.64	364	10.37	213	26
9,787	361	7.9	87	17.1	156	2.01	1.73	0.14	30.53	21	(35.83)	474	35.15	5	47
10,475	349	4.8	241	14.3	250	2.80	3.48	0.36	22.77	52	47.39	108	27.13	22	28
21,500	206	3.3	342	9.9	372	2.63	2.45	1.30	7.30	333	28.16	198	(0.03)	419	23

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
401	395	**Nashua** (Nashua, N.H.)	671,086	332,153	457	21,455	402	155,119	444
402	384	**Hobart** (Troy, Ohio)	665,281	459,327	379	33,195	344	228,604	374
403	455	**Freeport Minerals** (New York)	664,358	891,58[illegible]	265	147,402	129	498,489	242
404	447	**United Refining** (Warren, Pa.)	663,217	217,512	485	3,947	459	72,721	485
405	394	**Cannon Mills** (Kannapolis, N.C.)	659,648	440,406	393	20,627	407	326,311	307
406	402	**Washington Post** (Washington)	659,535	429,103	401	34,335	335	187,270	415
407	438	**Big Three Industries** (Houston)	659,121	815,048	285	86,604	201	472,607	251
408	381	**H.K. Porter** (Pittsburgh)	654,969	325,058	460	11,940	438	146,938	450
409	441	**Data General** (Westboro, Mass.)[7]	653,887	642,523	327	54,690	267	318,574	312
410	408	**Insilco** (Meriden, Conn.)	641,794	537,495	357	30,550	359	205,854	399
411	468	**Moore McCormack Resources** (Stamford, Conn.)	641,066	834,816	280	47,054	296	299,663	328
412	407	**Bell & Howell** (Chicago)	639,962	387,577	423	26,448**	378	178,317	423
413	448	**Gulf Resources & Chemical** (Houston)	638,312	587,087	342	25,072	385	188,254	413
414	●	**Clorox** (Oakland, Calif.)[3]	637,433	374,350	431	33,209	343	231,417	372
415	500	**Magic Chef** (Cleveland, Tenn.)[1]	636,359	352,316	445	5,114	453	113,018	467
416	419	**Harnischfeger** (Brookfield, Wis.)[8]	634,069	518,293	363	4,741	457	180,882	420
417	428	**VF** (Wyomissing, Pa.)	633,770	347,799	450	45,887	299	213,411	387
418	358	**Scott & Fetzer** (Lakewood, Ohio)[17]	632,398	394,043	421	23,069	396	185,079	417
419	424	**Envirotech** (Menlo Park, Calif.)[9]	627,245	381,323	429	(15,098)	478	113,002	468
420	413	**DPF** (Hartsdale, N.Y.)[14]	623,576	321,408	462	7,400	447	71,029	486
421	362	**Kane-Miller** (Tarrytown, N.Y.)	623,102	203,552	488	4,873	456	85,975	479
422	356	**United Merchants & Manufacturers** (New York)[4]	621,974	460,045	378	(19,696)	480	57,127	490
423	452	**Varian Associates** (Palo Alto, Calif.)[7]	620,863	514,622	365	22,107	399	195,199	406
424	380	**M. Lowenstein** (New York)	620,475	326,568	458	4,873	455	148,210	449
425	416	**Avery International** (San Marino, Calif.)[17]	618,653	351,436	446	24,538	387	172,041	430
426	412	**Nalco Chemical** (Oak Brook, Ill.)	616,709	416,223	410	72,261	233	306,550	322
427	350	**McLouth Steel** (Detroit)	614,012	446,085	388	(56,568)	485	121,909	464
428	433	**EG&G** (Wellesley, Mass.)	613,093	198,846	489	26,310	380	109,083	472
429	442	**Dean Foods** (Franklin Park, Ill.)	611,736	179,058	491	12,456	437	64,180	487
430	523	**Dorchester Gas** (Dallas)[17]	608,760	336,294	455	34,919	331	123,750	462
431	411	**Dan River** (Greenville, S.C.)	607,737	383,256	426	19,627	415	197,192	401
432	429	**Idle Wild Foods** (Worcester, Mass.)[12]	604,447	93,515	498	6,325	450	43,699	494
433	457	**Storage Technology** (Louisville, Colo.)	603,493	738,119	306	45,400	300	250,563	356
434	445	**Gerber Products** (Fremont, Mich.)[9]	601,986	352,796	444	29,716	364	221,261	384
435	414	**Collins & Aikman** (New York)[6]	599,542	340,203	454	16,414	427	191,222	411
436	369	**Norris Industries** (Long Beach, Calif.)	599,179	364,649	438	23,871	392	259,574	352
437	444	**Bausch & Lomb** (Rochester, N.Y.)	582,681	413,392	412	52,333	279	246,825	362
438	454	**Maryland Cup** (Owings Mills, Md.)[7]	579,233	359,754	441	26,148	381	196,392	404
439	397	**Hoover Universal** (Ann Arbor, Mich.)	578,661	298,473	472	16,791	425	153,120	445
440	398	**Wallace Murray** (New York)	577,490	392,443	422	33,614	340	209,587	391
441	461	**H.H. Robertson** (Pittsburgh)	571,245	316,191	465	19,600	416	111,609	469
442	596	**Marley** (Mission Woods, Kans.)[8]	568,849	422,906	407	20,367	412	131,547	457
443	393	**Macmillan** (New York)	566,020	428,353	402	(9,265)	474	196,632	403
444	435	**Tyler** (Dallas)	563,841	264,648	479	13,644‡	435	120,490	465
445	504	**Gifford-Hill** (Dallas)	560,602	530,948	360	23,685	393	171,389	432
446	464	**Carpenter Technology** (Reading, Pa.)[2]	559,060	353,113	443	43,097	311	249,780	358
447	443	**Wm. Wrigley Jr.** (Chicago)	557,632	316,776	463	30,689	356	233,732	370
448	434	**Kellwood** (St. Louis)[16]	556,334	344,281	452	216	469	77,202	481
449	460	**National Starch & Chemical** (Bridgewater, N.J.)[24]	552,060	382,806	428	33,415	341	235,078	368
450	483	**Wyman-Gordon** (Worcester, Mass.)	550,215	360,696	440	29,902	363	182,819	418

N.A. Not available

●Indicates that a corporation was not among the 500 or the Second 500 in 1979

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344

†Average for the year; see the reference to "employees" on page 344

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
7,100	415	3.2	349	[illegible]	[illegible]	[illegible]	5.75	1.60	11.14	257	(9.70)	439	1.54	392	26
12,571	306	5.0	222	[illegible]	[illegible]	2.91	2.73	1.02	11.05	259	99.51	26	8.96	241	45
3,022	482	22.2	4	[illegible]	[illegible]	4.67	3.23	0.45	26.36	33	41.70	127	28.27	18	10
2,200†	488	0.6	457	5.4	[illegible]	1.64	7.15	1.19	3.26	378	75.51	51	17.73	94	29
23,700	187	3.1	353	[illegible]	430	2.20	4.39	1.52	3.77	371	15.51	281	13.87	144	22
5,200	451	5.2	215	18.3	122	2.44	1.89	N.A.	—		9.81	328	—		27
5,490	443	13.1	17	18.3	[illegible]	2.05	1.49	0.25	23.42	47	56.29	80	20.53	67	28
8,312	391	1.8	419	8.1	414	9.88	20.03	(2.10)‡	—		4.93	358	19.06	86	33
14,370	281	8.4	75	17.2	153	5.20	4.82	0.13**	44.61	6	20.04	254	25.28	34	44
9,306	375	4.8	245	14.8	231	2.36	2.15	0.94**	9.64	296	96.34	28	12.77	166	28
4,100	472	7.3	103	15.7	202	8.25	7.10	(2.38)‡	—		21.03	241	27.68	21	10
11,241	336	4.1	286	14.8	232	4.69**	(4.46)	2.03	8.73	314	28.41	195	3.09	373	38
5,007	454	3.9	300	13.3	289	2.66	1.44	0.97**	10.61	271	(11.65)	446	12.04	185	33
5,000	455	5.2	213	14.4	248	1.44	1.65	0.74	6.88	341	6.50	349	(1.11)	426	28
6,854	425	0.8	450	4.5	443	0.31	2.01	0.63	(6.85)	411	0.99	381	0.37	416	36
7,600	406	0.7	455	2.6	457	0.53	(0.22)	0.41	2.60	382	6.67	347	15.99	110	45
19,400†	224	7.2	108	21.5	57	5.15	3.90	1.24	15.30	161	34.07	164	8.46	248	23
16,225	256	3.6	317	12.5	314	3.12	4.62	1.56	7.18	336	9.03	334	8.90	243	45
8,989	378	—		—		(3.30)	1.48	N.A.	—		(0.07)	389	—		45
13,063	293	1.2	439	10.4	363	1.64	3.12	(1.14)‡	—		(23.87)	466	(5.72)	451	20
3,700†	476	0.8	453	5.7	436	1.49	0.30	0.81	6.28	351	(2.43)	408	0.69	410	20
15,000	276	—		—		(3.32)	4.37**	2.81	—		(23.00)	465	(13.03)	461	22
14,008	285	3.6	325	11.3	342	2.77	1.15	0.68	15.08	164	(5.39)	425	8.91	242	36
13,000	295	0.8	452	3.3	455	1.47	(1.02)	2.58	(5.47)	409	40.95	131	(4.29)	447	22
6,910	421	4.0	297	14.3	254	2.72	2.35	0.80	13.02	204	30.36	183	(2.29)	434	26
4,410	464	11.7	26	23.6	36	3.61	3.18	0.78**	16.56	132	54.64	86	12.33	175	28
5,308†	447	—		—		(10.51)	1.58	(2.95)	—		(25.40)	467	(4.32)	448	33
17,000	249	4.3	275	24.1	34	1.93	1.57	0.10	34.45	16	80.16	43	20.84	63	38
3,900	474	2.0	409	19.4	94	4.14	3.26	0.64	20.53	72	117.19	9	26.16	27	20
1,042	496	5.7	178	28.2	13	3.83	2.84	(0.28)‡	—		91.37	32	42.57	1	29
14,500	280	3.2	346	10.0	371	3.42	3.90	0.24	30.43	22	(15.38)	453	9.76	225	22
1,622	491	1.0	446	14.5	240	3.58	3.72	(1.25)	—		14.84	287	—		20
11,536	328	7.5	100	18.1	127	1.76	1.58	N.A.	—		30.21	186	—		44
11,359†	333	4.9	226	13.4	284	3.45	3.36	1.87	6.32	350	20.47	249	1.43	395	20
10,750	344	2.7	374	8.6	404	1.32	1.93	1.24	0.63	394	10.41	319	(2.35)	436	22
9,600	366	4.0	296	9.2	386	2.45	3.63	1.28	6.71	344	19.57	256	13.82	146	34
11,800	324	9.0	59	21.2	59	4.36	3.49	0.38	27.64	28	65.61	63	20.22	72	38
10,500†	347	4.5	263	13.3	290	3.89	4.23	1.24	12.11	234	18.07	265	4.14	353	26
7,941†	398	2.9	364	11.0	357	1.90	3.57	0.81	8.90	310	13.33	294	8.39	250	34
9,589	367	5.8	174	16.0	189	5.02	5.29	1.11	16.29	138	30.26	185	13.77	147	34
7,736	403	3.4	336	17.6	143	9.11	6.61	2.31	14.71	169	43.64	120	13.25	157	34
8,000	394	3.6	323	15.5	209	3.42	3.54	0.82	15.35	160	51.42	97	6.17	300	45
10,000	356	—		—		(0.77)	(4.52)	0.50	—		(1.22)	397	5.32	317	27
7,900	400	2.4	391	11.3	343	1.41‡	2.34	(0.14)‡	—		8.13	340	19.24	84	33
5,300	448	4.2	281	13.8	269	3.22	3.45	0.78	15.23	162	(3.99)	418	9.28	237	32
4,937	457	7.7	93	17.3	152	5.03	4.76	1.30	14.49	173	39.42	143	20.08	75	33
6,100	432	5.5	191	13.1	294	3.90	4.63	1.93	7.29	334	(11.02)	445	7.09	281	20
17,900	239	—	468	0.3	467	0.06	1.28	1.64	(28.17)	420	10.70	316	(4.24)	446	23
4,389	466	6.1	161	14.2	256	N.A.	N.A.	N.A.	—		—		—		28
5,014	453	5.4	198	16.4	177	3.30	2.28	(0.05)	—		44.81	117	—		34

THE 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
451	484	**Beckman Instruments** (Fullerton, Calif.)[3]	549,272	534,175	358	36,557	328	274,305	344
452	446	**H.P. Hood** (Boston)[6]	548,563	138,754	496	4,313	458	52,942	491
453	417	**Fairmont Foods** (Houston)[6,30]	547,984	171,412	492	6,653	449	74,771	484
454	469	**McCormick** (Hunt Valley, Md.)[17]	547,966	306,968	470	14,840	430	132,355	455
455	467	**Economics Laboratory** (St. Paul)[3]	547,672	402,963	416	31,145	353	194,820	407
456	406	**Eagle-Picher Industries** (Cincinnati)[17]	543,297	365,536	437	21,298	403	210,384	390
457	576	**Wang Laboratories** (Lowell, Mass.)[3]	543,272	578,453	345	52,113	280	191,496	410
458	421	**Stokely-Van Camp** (Indianapolis)[14]	541,528	257,634	480	11,431	440	150,090	446
459	440	**American Hoist & Derrick** (St. Paul)[17]	538,589	412,950	413	20,501	409	179,706	421
460	432	**American Bakeries** (Chicago)	535,583	148,914	495	2,067	463	52,733	492
461	470	**Dexter** (Windsor Locks, Conn.)	534,991	315,882	466	25,720	383	156,402	443
462	477	**Dow Jones** (New York)	530,700	396,604	420	58,883	257	221,314	383
463	437	**Fieldcrest Mills** (Eden, N.C.)	527,229	315,873	467	19,435	417	159,842	441
464	436	**Midland Cooperatives** (Columbia Heights, Minn.)	523,529	233,547	482	N.A.[13]		75,549	482
465	372	**Sheller-Globe** (Toledo)[7]	517,782	308,515	469	(20,032)	481	130,597	458
466	511	**Rohr Industries** (Chula Vista, Calif.)[10]	516,028	325,034	461	1,025	465	78,374	480
467	632	**Trinity Industries** (Dallas)[9]	515,400	232,157	483	25,331	384	100,420	477
468	463	**Sun Chemical** (New York)	513,964	451,975	384	31,439	352	148,946	448
469	422	**Bucyrus-Erie** (South Milwaukee, Wis.)	511,293	625,544	334	48,234	293	389,874	283
470	534	**National Cooperative Refinery Assoc.** (McPherson, Kans.)[3]	510,938	362,078	439	N.A.[13]		101,530	476
471	430	**Masonite** (Chicago)[12]	510,584	369,949	434	30,129	360	268,030	348
472	563	**Savannah Foods & Industries** (Savannah, Ga.)	510,573	121,893	497	8,215	445	42,170	496
473	476	**Consolidated Papers** (Wisconsin Rapids, Wis.)	510,289	386,899	425	52,573	277	284,192	339
474	462	**Foxboro** (Foxboro, Mass.)	509,057	421,063	408	32,054	351	282,127	341
475	513	**Todd Shipyards** (New York)[9]	507,399	187,672	490	19,402**	418	58,774	489
476	471	**Harcourt Brace Jovanovich** (New York)	504,034	375,837	430	24,407	388	161,398	439
477	439	**Coca-Cola Bottling Co. of N.Y.** (Hackensack, N.J.)	502,492	237,627	481	(9,382)‡	475	115,221	466
478	474	**Dennison Manufacturing** (Framingham, Mass.)	492,414	283,372	476	23,305	395	173,298	428
479	487	**Westmoreland Coal** (Philadelphia)	491,816	370,234	433	340	467	178,280	424
480	465	**Frederick & Herrud** (Southfield, Mich.)[14]	491,173	68,513	499	7,254	448	28,205	497
481	488	**Sonoco Products** (Hartsville, S.C.)	490,397	316,601	464	32,511	346	192,819	409
482	481	**Nucor** (Charlotte, N.C.)	482,420	291,222	474	45,060	303	177,604	425
483	493	**Federal Paper Board** (Montvale, N.J.)	476,125	472,835	377	29,133	366	207,669	395
484	472	**Chicago Pneumatic Tool** (New York)	474,151	387,331	424	11,935	439	169,235	433
485	497	**Capital Cities Communications** (New York)	472,108	519,958	362	73,213	230	360,763	293
486	328	**Fleetwood Enterprises** (Riverside, Calif.)[16]	472,063	165,799	494	(8,474)	473	110,406	471
487	485	**Bunker Ramo** (Oak Brook, Ill.)	467,559	333,739	456	27,179	375	176,826	426
488	453	**General Refractories** (Bala Cynwyd, Pa.)	467,126	304,848	471	2,221**	462	101,924	475
489	491	**Dorsey** (Chattanooga, Tenn.)	465,952	207,948	486	8,383	444	75,086	483
490	475	**Warnaco** (Bridgeport, Conn.)	465,009	228,150	484	16,590	426	102,303	473
491	547	**Raychem** (Menlo Park, Calif.)[3]	462,377	403,909	415	36,488	329	207,642	396
492	450	**Copperweld** (Pittsburgh)	460,702	351,420	447	18,981	420	162,503	437
493	466	**Questor** (Toledo)	460,574	312,029	468	(12,588)	477	131,984	456
494	519	**Ampex** (Redwood City, Calif.)[16]	460,122	350,620	448	34,659**	334	165,749	436
495	478	**Ideal Basic Industries** (Denver)	458,923	844,421	275	52,764	275	374,801	290
496	635	**Mitchell Energy & Development** (The Woodlands, Tex.)[27]	457,549	786,923	291	61,466	252	196,191	405
497	495	**Metromedia** (Secaucus, N.J.)	453,913	544,083	354	54,798	266	123,805	461
498	494	**McDonough** (Parkersburg, W. Va.)[27]	450,611	207,547	487	21,550	401	144,520	452
499	501	**International Flavors & Fragrances** (New York)	448,309	414,859	411	63,232	248	315,485	316
500	456	**Fiat-Allis** (Deerfield, Ill.)	447,670	285,000	475	(54,978)	484	43,001	495
		TOTALS	**1,650,263,348**	**1,175,470,789**		**81,194,029**		**541,399,180**	

N.A. Not available.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

†Average for the year; see the reference to "employees" on page 344.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 344.

[30] Company is wholly owned by American Financial.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
12,100	315	6.7	131	13.3	288	1.83	1.66	0.36	17.66	108	27.20	203	20.13	73	38
3,255	480	0.8	451	8.1	412	4.23	0.75	N.A.	—		—		—		20
6,900	422	1.2	437	8.9	394	1.45	0.85	1.20	1.91	387	—		—		20
5,900†	437	2.7	378	11.2	348	1.31	1.71	0.48	10.56	273	(2.26)	406	7.90	258	20
7,764	402	5.7	180	16.0	191	2.31	2.22	0.63	13.87	183	(10.66)	441	0.84	404	43
9,400	371	3.9	301	10.1	367	2.14	3.03	1.00	7.90	324	2.64	372	9.92	221	45
11,670	326	9.6	46	27.2	17	2.00	1.17	0.16	28.73	24	156.78	3	30.87	11	44
5,400	444	2.1	406	7.6	416	3.23	3.73	1.06	11.79	247	(7.94)	436	6.48	291	20
7,443	409	3.8	308	11.4	339	3.41	3.60	0.44	22.72	54	4.15	363	14.42	138	45
8,900	380	0.4	462	3.9	450	0.85	1.03	0.73	1.53	391	(3.19)	412	4.97	325	20
5,400	445	4.8	239	16.4	175	2.80	2.68	0.56	17.46	112	45.61	113	12.92	163	28
5,100	452	11.1	32	26.6	19	3.79	3.29	1.17	12.47	221	55.52	84	8.77	246	27
12,300	312	3.7	314	12.2	320	5.18	6.56	2.21	8.89	311	5.32	353	4.47	347	22
1,272	495	—		—		N.A.	N.A.	N.A.	—		—		—		29
10,466	351	—		—		(3.59)	1.84	0.84‡	—		(19.99)	462	(2.24)	433	40
10,000	359	0.2	465	1.3	463	0.14	4.90	2.92	(26.20)	419	(7.03)	434	1.72	390	41
5,700	439	4.9	229	25.2	24	3.26	1.22	0.32	26.13	37	111.90	12	37.35	3	37
6,100	433	6.1	159	21.1	60	4.52	3.61	(0.92)‡	—		16.50	275	15.96	112	28
4,835	459	9.4	48	12.4	316	2.36	2.75	0.65	13.76	186	27.52	200	13.27	156	45
440	498	—		—		N.A.	N.A.	N.A.	—		—		—		29
9,100	377	5.9	169	11.2	345	2.19	3.49	1.11	7.03	338	31.41	179	4.15	351	26
1,407	494	1.6	428	19.5	92	4.23	(6.61)	2.44	5.66	357	40.46	135	7.39	270	20
5,277†	449	10.3	40	18.5	118	4.91	5.15	0.33	31.00	19	25.50	215	29.79	13	26
11,700	325	6.3	148	11.4	340	3.87	4.07	0.87	16.10	144	59.28	75	15.97	111	38
9,700†	362	3.8	307	33.0	5	11.32**	7.86**	3.61	12.11	235	35.89	156	10.51	212	37
8,600	384	4.8	236	15.1	219	5.56	5.46	2.20	9.71	295	10.29	323	4.08	355	27
3,882	475	—		—		(0.49)‡	0.44	0.65	—		55.55	83	0.81	406	49
8,000	396	4.7	248	13.4	283	2.42	2.72	0.68	13.54	191	2.98	371	12.23	179	26
4,488	462	0.1	466	0.2	468	0.05	0.26	1.77**	(30.00)	421	(16.36)	455	3.24	371	10
2,100	489	1.5	432	25.7	22	2.07	0.58	N.A	—		(16.20)	454	—		20
8,000	395	6.6	133	16.9	164	5.79	4.75	1.12	17.85	105	11.45	308	12.98	162	26
3,300	479	9.3	52	25.4	23	6.62	6.29	0.20	41.90	8	76.27	48	37.23	4	34
4,390	465	6.1	158	14.0	259	3.95	3.33	1.06	14.06	179	7.63	342	18.05	90	26
8,293	392	2.5	386	7.1	425	2.44	3.30	2.90	(1.71)	404	(12.69)	449	0.40	415	45
6,320	430	15.5	10	20.3	71	5.56	4.68	0.68‡	23.38	48	21.24	239	15.03	124	27
4,200	469	—		—		(0.75)	2.01	0.52	—		0.22	386	(5.26)	450	37
9,400	369	5.8	175	15.4	213	4.23	3.65	1.17	13.71	189	41.80	126	6.10	302	36
6,715	426	0.5	459	2.2	461	0.56**	1.71	1.17	(7.10)	412	0.00	388	0.79	407	32
6,700	427	1.8	421	11.2	349	2.68	3.14	1.61	5.23	361	32.67	170	3.61	363	32
10,045	356	3.6	324	16.2	181	3.87	3.92	0.04‡	57.97	2	40.90	132	4.81	333	23
7,850	401	7.9	85	17.6	142	4.22	3.51	0.02	70.78	1	40.34	137	20.66	65	36
4,162	470	4.1	287	11.7	332	3.33	4.04	0.41‡	23.30	49	34.08	163	22.88	45	33
7,500	408	—		—		(1.32)	0.88	0.50‡	—		26.06	212	(0.40)	420	40
12,000	316	7.5	99	20.9	64	3.03**	2.41**	1.13‡	10.37	281	75.78	49	7.15	279	36
4,216	468	11.5	27	14.1	257	3.93	4.57	0.65‡	19.71	83	20.53	247	12.29	177	32
2,575	486	13.4	15	31.3	6	3.39	1.86	N.A.	—		220.26	1	—		10
4,768	460	12.1	22	44.3	2	12.36	9.06	0.72‡	32.88	17	41.10	130	24.18	39	48
8,400	388	4.8	243	14.9	226	5.39	5.27	0.97	18.71	91	65.05	65	15.89	115	31
3,599	477	14.1	12	20.0	75	1.73	1.68	0.41	15.49	156	20.31	251	2.85	377	28
3,972	473	—		—		N.A.	N.A.	N.A.	—		—		—		45
,909,985															

NOTES TO THE FORTUNE DIRECTORY

SALES include service and rental revenues but exclude dividends, interest, and other non-operating revenues. All companies on the list must have derived more than 50 percent of their sales from manufacturing and/or mining. Sales of subsidiaries are included when they are consolidated; sales from discontinued operations are included when these figures are published. All figures are for the year ending December 31, 1980, unless otherwise noted. Sales figures do not include excise taxes collected by the manufacturer, and so the figures for some corporations—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the corporations themselves. When they are at least 5 percent lower for this reason, there is an asterisk (*) next to the sales figure.

ASSETS are those shown at the company's year-end.

NET INCOME is shown after taxes and after extraordinary credits or charges when any are shown on the income statement. A double asterisk (**) signifies an extraordinary credit reflecting at least 10 percent of the net income shown, a double dagger (‡) an extraordinary charge of at least 10 percent. Figures in parentheses indicate a loss.

STOCKHOLDERS' EQUITY is the sum of capital stock, surplus, and retained earnings at the company's year-end. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company, except in the case of cooperatives.

EMPLOYEES: The figure shown is a year-end total except when it is followed by a dagger (†), in which case it is an average for the year.

EARNINGS PER SHARE: For all companies, the figures shown are the "primary" earnings per share that appear on the company's income statement. These figures are based on a weighted average of the number of common shares and common-stock equivalents outstanding during the year. "Common-stock equivalents" generally include (a) convertible securities whose cash yield is less than two-thirds of the prime rate at the time the securities were issued and (b) options and warrants when the effect of their inclusion in the computation would reduce the "primary" earnings per share. Per-share earnings for 1979 and 1970 are adjusted for stock splits and stock dividends. They are not restated for mergers, acquisitions, or accounting changes made after 1970. A double asterisk (**) signifies an extraordinary credit reflecting at least 10 percent of the net income shown, a double dagger (‡) an extraordinary charge of a least 10 percent. Results are listed as not available (N.A.) where the companies are cooperatives, joint ventures, or wholly owned subsidiaries of other companies, or if the figures were not published in 1970. The growth rate is the average annual growth, compounded. No growth rate is given if the company had a loss in either 1970 or 1980.

TOTAL RETURN TO INVESTORS includes both price appreciation and dividend yield, i.e., to an investor in the company's stock. The figures shown assume sales at the end of 1980 of stock owned at the end of 1970 or 1979. It has been assumed that any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spin-offs were reinvested at the end of the year in which they were received. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. Results are listed as not available (N.A.) where shares are not publicly traded or traded on only a limited basis. Where companies have more than one class of shares outstanding, only the more widely held and actively traded has been considered.

Total-return percentages shown are the returns received by the hypothetical investor described above. The ten-year figures are annual averages, compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

INDUSTRY CODE numbers used in the directory indicate which industry represents the greatest volume of industrial sales for each company. The numbers refer to the industry groups below, which are based on categories established by the U.S. Office of Management and Budget and issued by the Federal Statistical Policy and Standards Office. They are the same industry groups as those shown in the tables beginning on this page. The median figures in the tables refer only to results of companies among the 500; no attempt has been made to calculate medians in groups with less than four companies.

CODE NO.	INDUSTRY
10	Mining, crude-oil production
20	Food
21	Tobacco
22	Textiles, vinyl flooring
23	Apparel
25	Furniture
26	Paper, fiber, and wood products
27	Publishing, printing
28	Chemicals
29	Petroleum refining
30	Rubber, plastic products
31	Leather
32	Glass, concrete, abrasives, gypsum
33	Metal manufacturing
34	Metal products
36	Electronics, appliances
37	Shipbuilding, railroad and transportation equipment
38	Measuring, scientific, photographic equipment
40	Motor vehicles
41	Aerospace
42	Pharmaceuticals
43	Soaps, cosmetics
44	Office equipment (includes computers)
45	Industrial and farm equipment
46	Jewelry, silverware
47	Musical instruments, toys, sporting goods
48	Broadcasting, motion-picture production and distribution
49	Beverages

WHO DID BEST (AND WORST) AMONG THE 500

TOTAL RETURN TO INVESTORS, 1980

THE TEN HIGHEST

	SALES RANK	
Mitchell Energy & Development	496	220.26%
ConAgra	340	171.78
Wang Laboratories	457	156.78
LTV	42	153.13
Cameron Iron Works	385	145.39
NL Industries	177	125.14
Union Pacific	75	121.87
Shell Oil	12	120.08
Dean Foods	429	117.19
Litton Industries	88	117.17

THE FIVE LOWEST

Commonwealth Oil Refining	258	−62.63%
Charter	84	−41.65
American Motors	155	−41.46
White Motor	350	−40.35
Monfort of Colorado	365	−40.28

THE INDUSTRY MEDIANS

Petroleum refining	53.09%
Aerospace	40.52
Electronics, appliances	36.07
Shipbuilding, transportation equipment	35.89
Mining, crude-oil production	34.10
Tobacco	32.47
Pharmaceuticals	29.33
Measuring, scientific, photographic equipment	28.41
Apparel	28.16
Rubber, plastic products	28.05
Industrial and farm equipment	23.95
Musical instruments, toys, sporting goods	22.39
Publishing, printing	21.24
Metal manufacturing	20.69
Metal products	20.11
Office equipment (includes computers)	20.04
Beverages	18.36
Paper, fiber, and wood products	17.31
Chemicals	16.65
Broadcasting, motion-picture production and distribution	12.46
Glass, concrete, abrasives, gypsum	10.45
Textiles, vinyl flooring	10.41
Food	9.81
Soaps, cosmetics	5.22
Motor vehicles	3.39
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.
All industries	**21.05**

TOTAL RETURN TO INVESTORS, 1970-80

THE TEN HIGHEST

	SALES RANK	
Dorchester Gas	430	42.57%
NVF	330	41.65
Trinity Industries	467	37.35
Nucor	482	37.23
Bally Manufacturing	398	35.15
Boeing	30	34.26
National Semiconductor	307	33.27
Smith International	356	33.21
Teledyne	132	32.16
Baker International	224	32.08

THE FIVE LOWEST

White Motor	350	−14.12%
Memorex	358	−13.91
Genesco	339	−13.44
United Merchants & Manufacturing	422	−13.03
Commonwealth Oil Refining	258	−12.46

THE INDUSTRY MEDIANS

Aerospace	20.91%
Mining, crude-oil production	19.96
Broadcasting, motion-picture production and distribution	18.56
Petroleum refining	17.58
Measuring, scientific, photographic equipment	14.44
Tobacco	14.22
Chemicals	11.97
Industrial and farm equipment	11.56
Metal products	11.52
Metal manufacturing	10.89
Shipbuilding, railroad and transportation equipment	10.51
Publishing, printing	9.90
Electronics, appliances	7.24
Paper, fiber, and wood products	7.20
Pharmaceuticals	6.91
Food	6.62
Office equipment (includes computers)	6.44
Motor vehicles	5.24
Soaps, cosmetics	4.55
Textiles, vinyl flooring	4.47
Glass, concrete, abrasives, gypsum	4.16
Apparel	2.39
Rubber, plastic products	1.39
Musical instruments, toys, sporting goods	1.34
Beverages	.81
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.
All industries	**9.44**

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	SALES RANK	
Esmark	50	81.4%
Metromedia	497	44.3
Standard Oil (Ohio)	23	39.7
Occidental Petroleum	20	34.6
Todd Shipyards	475	33.0
Mitchell Energy & Development	496	31.3
SmithKline	203	31.2
American Home Products	96	30.3
Pennzoil	159	30.2
Freeport Minerals	403	29.6

THE INDUSTRY MEDIANS

	1980	1979
Mining, crude-oil production	21.0%	16.7%
Tobacco	19.8	18.4
Petroleum refining	19.4	19.1
Broadcasting, motion-picture production and distribution	18.0	22.2
Pharmaceuticals	17.9	18.0
Measuring, scientific, photographic equipment	17.1	16.1
Soaps, cosmetics	16.9	17.4
Aerospace	16.2	19.2
Electronics, appliances	16.2	16.3
Publishing, printing	15.9	17.9
Beverages	15.6	15.7
Metal products	15.3	16.0
Office equipment (includes computers)	15.1	15.9
Food	14.5	14.4
Shipbuilding, railroad and transportation equipment	14.4	18.1
Chemicals	13.9	15.2
Industrial and farm equipment	13.3	15.4
Metal manufacturing	12.9	15.6
Apparel	12.8	15.6
Paper, fiber, and wood products	12.8	15.9
Musical instruments, toys, sporting goods	12.6	12.1
Glass, concrete, abrasives, gypsum	11.3	14.0
Textiles, vinyl flooring	8.1	11.7
Motor vehicles	8.1	15.7
Rubber, plastic products	5.0	8.2
Leather	N.A.	N.A.
Furniture	N.A.	N.A.
Jewelry, silverware	N.A.	N.A.
All industries	**14.4**	**15.9**

RETURN ON SALES

THE TEN HIGHEST

	SALES RANK	
Texasgulf	286	29.9%
Newmont Mining	332	22.4
Superior Oil	233	22.3
Freeport Minerals	403	22.2
Kaiser Steel	320	20.9
Louisiana Land & Exploration	298	17.7
SmithKline	203	17.4
Standard Oil (Ohio)	23	16.4
AMAX	131	15.9
Capital Cities Communications	485	15.5

THE INDUSTRY MEDIANS

	1980	1979
Mining, crude-oil production	9.2%	8.7%
Pharmaceuticals	9.1	8.9
Tobacco	7.9	7.7
Measuring, scientific, photographic equipment	6.9	6.9
Broadcasting, motion-picture production and distribution	6.5	8.3
Publishing, printing	6.2	8.2
Office equipment (includes computers)	6.0	7.0
Soaps, cosmetics	5.9	6.4
Petroleum refining	5.5	6.6
Electronics, appliances	5.3	5.2
Chemicals	5.2	6.0
Paper, fiber, and wood products	5.0	6.3
Beverages	4.8	5.1
Metal products	4.7	5.0
Industrial and farm equipment	4.3	5.4
Metal manufacturing	4.1	4.6
Shipbuilding, railroad and transportation equipment	4.1	4.2
Aerospace	4.1	4.8
Glass, concrete, abrasives, gypsum	3.7	4.9
Musical instruments, toys, sporting goods	3.7	3.9
Apparel	3.6	4.4
Food	3.0	3.0
Textiles, vinyl flooring	2.8	3.8
Motor vehicles	2.6	4.1
Rubber, plastic products	1.5	2.8
Leather	N.A.	N.A.
Furniture	N.A.	N.A.
Jewelry, silverware	N.A.	N.A.
All industries	**4.8**	**5.2**

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	SALES RANK	
Getty Oil	26	110.1%
MAPCO	204	106.3
Crouse-Hinds	367	102.4
Marley	442	89.0
Trinity Industries	467	86.0
Penn Central	187	85.2
Bally Manufacturing	398	80.2
Wang Laboratories	457	68.9
Mitchell Energy & Development	496	67.1
Dorchester Gas	430	65.3

THE TEN BIGGEST DECREASES

Clorox	414	48.5%
Fleetwood Enterprises	486	41.0
White Motor	350	33.9
Central Soya	207	28.7
International Harvester	49	24.8
Chrysler	32	23.1
Sheller-Globe	465	21.1
Genesco	339	18.4
American Motors	155	18.1
A.O. Smith	388	17.1

THE INDUSTRY MEDIANS

	INCREASES
Mining, crude-oil production	36.2%
Petroleum refining	29.6
Office equipment (includes computers)	20.6
Beverages	17.4
Aerospace	16.4
Measuring, scientific, photographic equipment	16.3
Tobacco	15.9
Pharmaceuticals	14.7
Electronics, appliances	14.0
Publishing, printing	13.7
Industrial and farm equipment	12.9
Food	12.3
Soaps, cosmetics	12.2
Shipbuilding, railroad and transportation equipment	10.0
Broadcasting, motion-picture production and distribution	9.4
Apparel	9.3
Paper, fiber, and wood products	9.3
Chemicals	8.6
Metal products	7.7
Musical instruments, toys, sporting goods	6.7
Textiles, vinyl flooring	4.5
Glass, concrete, abrasives, gypsum	3.6
Metal manufacturing	2.3
	DECREASES
Motor vehicles	8.6%
Rubber, plastic products	3.3
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.

CHANGES IN PROFITS

THE INDUSTRY MEDIANS

	INCREASES
Mining, crude-oil production	45.4%
Petroleum refining	25.4
Measuring, scientific, photographic equipment	24.6
Electronics, appliances	16.6
Tobacco	15.2
Office equipment (includes computers)	14.2
Pharmaceuticals	13.8
Food	10.9
Publishing, printing	8.9
Soaps, cosmetics	7.6
Aerospace	6.5
Metal products	4.0
Industrial and farm equipment	3.9
Beverages	3.4
Chemicals	2.7
Musical instruments, toys, sporting goods	1.6
Shipbuilding, railroad and transportation equipment	1.3
Apparel	.9
	DECREASES
Motor vehicles	52.7%
Rubber, plastic products	37.6
Textiles, vinyl flooring	26.5
Glass, concrete, abrasives, gypsum	13.4
Paper, fiber, and wood products	11.4
Metal manufacturing	7.6
Broadcasting, motion-picture production and distribution	4.3
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.

THE MONEY LOSERS

	SALES RANK	LOSS
Chrysler	32	$1,709,700,000*
Ford Motor	6	1,543,300,000
General Motors	3	762,500,000
International Harvester	49	397,328,000
GAF	268	233,476,000
American Motors	155	197,525,000
Firestone Tire & Rubber	73	105,900,000
McLouth Steel	427	56,568,000
Fiat-Allis	500	54,978,000*
Memorex	358	28,978,000
Monfort of Colorado	365	23,863,000*
Sheller-Globe	465	20,032,000
United Merchants & Manufacturers	422	19,696,000
Lever Brothers	295	16,900,000*
Envirotech	419	15,098,000
Questor	493	12,588,000
Cummins Engine	217	10,987,000
Coca-Cola Bottling Co of New York	477	9,382,000
Macmillan	443	9,265,000*
Fleetwood Enterprises	486	8,474,000
Uniroyal	164	7,842,000*
Commonwealth Oil Refining	258	3,506,000
A. O. Smith	388	1,703,000

*Also lost money in 1979.

SALES PER DOLLAR OF STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	SALES RANK	
Monfort of Colorado	365	$36.45
Lockheed	61	17.62
Frederick & Herrud	480	17.41
Genesco	339	16.22
Iowa Beef Processors	81	15.97
Land O'Lakes	109	14.61
Gold Kist	193	14.21
Idle Wild Foods	432	13.83
General Host	344	13.01
Savannah Foods & Industries	472	12.11

THE FIVE LOWEST

Ideal Basic Industries	495	$1.22
AMAX	131	1.19
Newmont Mining	332	.96
Texasgulf	286	.93
Superior Oil	233	.83

THE INDUSTRY MEDIANS

Shipbuilding, railroad and transportation equipment	$4.74
Food	4.58
Aerospace	4.04
Petroleum refining	4.00
Rubber, plastic products	3.64
Apparel	3.49
Motor vehicles	3.27
Electronics, appliances	3.10
Textiles, vinyl flooring	3.08
Metal products	3.03
Broadcasting, motion-picture production and distribution	3.00
Soaps, cosmetics	2.90
Beverages	2.88
Metal manufacturing	2.81
Musical instruments, toys, sporting goods	2.66
Industrial and farm equipment	2.65
Glass, concrete, abrasives, gypsum	2.63
Tobacco	2.51
Chemicals	2.44
Publishing, printing	2.40
Office equipment (includes computers)	2.35
Paper, fiber, and wood products	2.27
Mining, crude-oil production	2.15
Measuring, scientific, photographic equipment	2.01
Pharmaceuticals	1.98
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.
All industries	**3.00**

SALES PER EMPLOYEE

THE TEN HIGHEST

	SALES RANK	
Pacific Resources	341	$1,183,819
National Cooperative Refinery Association	470	1,161,223
Standard Oil of California	5	1,006,490
Amerada Hess	43	938,681
Commonwealth Oil Refining	258	871,399
Crown Central Petroleum	262	844,599
Tosco	161	781,421
Texaco	4	767,036
American Petrofina	178	765,304
Coastal	66	733,207

THE FIVE LOWEST

Hart Schaffner & Marx	400	$31,390
Kellwood	448	31,080
Cannon Mills	405	27,833
General Instrument	379	25,375
National Semiconductor	307	24,349

THE INDUSTRY MEDIANS

Petroleum refining	$441,544
Mining, crude-oil production	177,689
Beverages	129,442
Broadcasting, motion-picture production and distribution	115,915
Food	103,004
Chemicals	100,456
Metal manufacturing	96,031
Paper, fiber, and wood products	93,949
Tobacco	91,406
Soaps, cosmetics	84,900
Shipbuilding, railroad and transportation equipment	81,109
Pharmaceuticals	73,527
Publishing, printing	71,501
Glass, concrete, abrasives, gypsum	71,291
Industrial and farm equipment	69,779
Motor vehicles	68,819
Metal products	67,897
Aerospace	61,660
Rubber, plastic products	60,649
Musical instruments, toys, sporting goods	59,001
Measuring, scientific, photographic equipment	54,368
Electronics, appliances	53,981
Office equipment (includes computers)	49,864
Textiles, vinyl flooring	46,279
Apparel	38,779
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.
All industries	**78,147**

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	SALES RANK	
National Cooperative Refinery Association	470	$822,905
Amerada Hess	43	703,262
Superior Oil	233	658,952
Coastal	66	592,427
Standard Oil of California	5	551,047
Standard Oil (Ohio)	23	526,639
Murphy Oil	188	495,562
Pacific Resources	341	493,843
Belco Petroleum	347	491,558
Shell Oil	12	481,337

THE FIVE LOWEST

VF	417	$17,928
American Bakeries	460	16,732
Genesco	339	14,973
National Semiconductor	307	13,942
EG&G	428	11,697

THE INDUSTRY MEDIANS

Petroleum refining	$303,839
Mining, crude-oil production	254,336
Broadcasting, motion-picture production and distribution	108,772
Beverages	83,072
Tobacco	81,937
Metal manufacturing	79,868
Chemicals	77,947
Paper, fiber, and wood products	76,141
Pharmaceuticals	66,453
Publishing, printing	56,129
Glass, concrete, abrasives, gypsum	55,668
Industrial and farm equipment	53,361
Soaps, cosmetics	52,708
Metal products	50,103
Office equipment (includes computers)	49,507
Food	49,488
Motor vehicles	46,039
Shipbuilding, railroad and transportation equipment	43,941
Rubber, plastic products	42,563
Measuring, scientific, photographic equipment	41,000
Aerospace	40,901
Musical instruments, toys, sporting goods	37,666
Electronics, appliances	37,594
Textiles, vinyl flooring	26,431
Apparel	20,364
Leather	N.A.
Furniture	N.A.
Jewelry, silverware	N.A.
All industries	**55,505**

ARRIVALS AND DEPARTURES

NEWCOMERS TO THE 500

	SALES RANK
Bally Manufacturing	398
Crouse-Hinds	367
Dorchester Gas	430
Gifford-Hill	445
International Flavors & Fragrances	499
Marley	442
Mitchell Energy & Development	496
National Cooperative Refinery Association	470
Penn Central	187
Raychem	491
Trinity Industries	467
Wang Laboratories	457

RETURNED TO THE 500*

Ampex (1973: 449)	494
Castle & Cooke (1978: 210)	210
Clorox (1977: 270)	414
Coastal (1974: 154)	66
GATX (1978: 401)	304
Genesco (1978: 232)	339
Rohr Industries (1976: 421)	466
Savannah Foods & Industries (1975: 410)	472
Todd Shipyards (1970: 426)	475

*Figures in parentheses indicate year and sales rank the last time the company was listed.

DISPLACED FROM THE 500

	1979 SALES RANK
Acco Industries[1]	431
Arvin Industries	451
Barnes Group	480
Beech Aircraft[2]	396
Bluebird[1]	415
Butler Manufacturing	473
Ceco	492
Dart Industries[3]	146
Jonathan Logan	486
Keystone Consolidated Industries	499
Koehring[4]	459
Kohler[1]	498
Liggett Group[4]	286
Norin[4]	365
Northwestern Steel & Wire	458
Reliance Electric[5]	232
Roper	490
Royal Crown Companies	489
Skyline	482
Stanadyne	496
Talley Industries	479

[1] Figures are no longer made public.
[2] Merged into Raytheon (rank: 69) February 8, 1980.
[3] Merged with Kraft to form Dart & Kraft (rank: 31) September 25, 1980.
[4] Acquired by a company in the Directory of 500 Largest Industrials Outside the U.S.
[5] Acquired by Exxon (rank: 1) September 24, 1979.

Reprints of this year's FORTUNE Directory will be available in September. The directory will include the FORTUNE 500 (from this issue), the Second 500 (published June 15), and the non-industrial "50 Largest" lists (published July 13). Single copies of the directory reprints are $7 each; 25 to 99 copies, $6 each; 100 or more, $5 each. Please address inquiries and payment to Fortune, Double 500 Directory 1981, P.O. Box 8001, Trenton, N.J. 08650. Payment must accompany order.

ALPHABETICAL INDEX OF THE 500 LARGEST INDUSTRIALS

COMPANY	RANK
ACF Industries	294
AM International	322
AMAX	131
AMF	225
AMP	281
A-T-O	361
Abbott Laboratories	185
Agway	147
Air Products & Chemicals	242
Airco	299
Akzona	293
Allegheny Ludlum Industries	229
Allied Chemical	59
Allis-Chalmers	182
Alumax	312
Aluminum Co. of America	63
Amerada Hess	43
American Bakeries	460
American Brands	86
American Broadcasting	168
American Can	76
American Cyanamid	106
American Hoist & Derrick	459
American Home Products	96
American Motors	155
American Petrofina	178
American Standard	145
Ampex	494
Amstar	257
Amsted Industries	321
Anchor Hocking	335
Anderson Clayton	213
Anheuser-Busch	110
Arcata	364
Archer-Daniels-Midland	139
Armco	58
Armstrong World Industries	252
Asarco	199
Ashland Oil	40
Atlantic Richfield	11
Avery International	425
Avnet	263
Avon Products	151
Baker International	224
Ball	383
Bally Manufacturing	398
Bangor Punta	363
Bausch & Lomb	437
Baxter Travenol Laboratories	248
Beatrice Foods	37
Beckman Instruments	451
Becton Dickinson	313
Belco Petroleum	347
Bell & Howell	412
Bemis	397
Bendix	87
Bethlehem Steel	47
Big Three Industries	407
Black & Decker Manufacturing	238
Blue Bell	245
Boeing	30
Boise Cascade	127
Borden	82
Borg-Warner	146
Briggs & Stratton	382
Bristol-Myers	117
Brockway Glass	384
Brown Group	269
Brunswick	273
Bucyrus-Erie	469
Bunker Ramo	487
Burlington Industries	134
Burroughs	137
CBI Industries	395
CBS	94
CF Industries	267
CPC International	91
Cabot	232
Cameron Iron Works	385
Campbell Soup	153
Campbell Taggart	283
Cannon Mills	405
Capital Cities Communications	485
Carnation	113
Carpenter Technology	446
Castle & Cooke	210
Caterpillar Tractor	33
Celanese	107
Central Soya	207
CertainTeed	333
Cessna Aircraft	301
Champion International	99
Champion Spark Plug	351
Charter	84
Chesebrough-Pond's	247
Chicago Pneumatic Tool	484
Chromalloy American	231
Chrysler	32
Cincinnati Milacron	343
Cities Service	44
Clark Equipment	226
Clark Oil & Refining	221
Clorox	414
Cluett Peabody	370
Coastal	66
Coca-Cola	56
Coca-Cola Bottling Co. of N.Y.	477
Colgate-Palmolive	64
Collins & Aikman	435
Colt Industries	175
Columbia Pictures Industries	389
Combustion Engineering	118
Commonwealth Oil Refining	258
ConAgra	340
Cone Mills	375
Conoco	14
Consolidated Aluminum	318
Consolidated Foods	62
Consolidated Papers	473
Continental Group	65
Control Data	141
Cooper Industries	197
Coors (Adolph)	329
Copperweld	492
Corning Glass Works	227
Crane	228
Crouse-Hinds	367
Crown Central Petroleum	262
Crown Cork & Seal	235
Crown Zellerbach	123
Cummins Engine	217
Cyclops	309
DPF	420
Dan River	431
Dana	157
Dart & Kraft	31
Data General	409
Dayco	380
Dean Foods	429
Deere	60
Dennison Manufacturing	478
Dexter	461
Diamond International	259
Diamond Shamrock	119
Digital Equipment	162
Donnelly (R.R.) & Sons	284
Dorchester Gas	430
Dorsey	489
Dover	342
Dow Chemical	25
Dow Corning	396
Dow Jones	462
Dresser Industries	93
Du Pont (E. I.) de Nemours	15
EG&G	428
Eagle-Picher Industries	456
Eastman Kodak	29
Eaton	115
Economics Laboratory	455
Emerson Electric	124
Emhart	200
Envirotech	419
Esmark	50
Ethyl	208
Evans Products	240
Ex-Cell-O	297
Exxon	1
FMC	103
Fairchild Industries	325
Fairmont Foods	453
Farmland Industries	80
Federal Co.	310
Federal-Mogul	377
Federal Paper Board	483
Ferro	386
Fiat-Allis	500
Fieldcrest Mills	463
Firestone Tire & Rubber	73
Fleetwood Enterprises	486
Ford Motor	6
Foxboro	474
Frederick & Herrud	480
Freeport Minerals	403
Freuhauf	180
GAF	268
GATX	304
GK Technologies	275
Gannett	270
General Cinema	362
General Dynamics	79
General Electric	10
General Foods	55
General Host	344
General Instrument	379
General Mills	89
General Motors	3
General Refractories	488
General Signal	230
General Tire & Rubber	171
Genesco	339
Georgia-Pacific	68
Gerber Products	434
Getty Oil	26
Gifford-Hill	445
Gillette	163
Gold Kist	193
Goodrich (B.F.)	122
Goodyear Tire & Rubber	36
Gould	173
Grace (W.R.)	51
Great Northern Nekoosa	249
Greyhound	78
Grumman	211
Gulf Oil	7
Gulf Resources & Chemical	413
Gulf & Western Industries	57
Hammermill Paper	278
Handy & Harman	360
Harcourt Brace Jovanovich	476
Harnischfeger	4[illegible]
Harris	254
Harsco	291
Hart Schaffner & Marx	400
Heileman (G.) Brewing	376
Heinz (H.J.)	133
Hercules	158
Hershey Foods	251
Heublein	239
Hewlett-Packard	120
Hobart	402
Honeywell	71
Hood (H.P.)	452
Hoover	346
Hoover Universal	439
Hormel (Geo. A.)	253
Hughes Tool	272
Hyster	393
IC Industries	90
INTERCO	186
Ideal Basic Industries	495
Idle Wild Foods	432
Ingersoll-Rand	129
Inland Steel	112
Insilco	410
Intel	336
Interlake	292
International Business Machines	8
International Flavors & Fragrances	499
International Harvester	49
International Minerals & Chemical	201
International Multifoods	290
International Paper	67
International Telephone & Telegraph	13
Iowa Beef Processors	81
Johns-Manville	166
Johnson Controls	306
Johnson & Johnson	74
Joy Manufacturing	317

Most of the figures in this FORTUNE *500 Directory were prepared by reporter Ford S. Worthy, who is responsible for the columns reporting on companies' sales, assets, net income, stockholders' equity, employees, net income as a proportion of sales and of stockholders' equity, and the industry code numbers. Figures on earnings per share and total return to investors were prepared by Claudine Knight.*

Kaiser Aluminum & Chemical	114
Kaiser Steel	321
Kane-Miller	421
Kellogg	176
Kellwood	448
Kennecott	169
Kerr-McGee	105
Kidde	156
Kimberly-Clark	150
Knight-Ridder Newspapers	285
Koppers	190
LTV	42
Land O'Lakes	109
Lear Siegler	241
Lever Brothers	295
Levi Strauss	138
Libbey-Owens-Ford	280
Lilly (Eli)	154
Lipton (Thomas J.)	352
Litton Industries	88
Lockheed	61
Lone Star Industries	323
Louisiana Land & Exploration	298
Louisiana-Pacific	274
Lowenstein (M.)	424
Lubrizol	320
MAPCO	204
MCA	256
Macmillan	443
Magic Chef	415
Marathon Oil	39
Marley	442
Marmon Group Inc.	198
Martin Marietta	149
Maryland Cup	438
Masco	359
Masonite	471
Mattel	349
McCormick	454
McDermott	111
McDonnell Douglas	53
McDonough	498
McGraw-Edison	167
McGraw-Hill	300
McLouth Steel	427
Mead	144
Memorex	358
Merck	142
Metromedia	497
Midland Cooperatives	464
Midland-Ross	324
Miles Laboratories	391
Minnesota Mining & Manufacturing	52
Mitchell Energy & Development	496
Mobil	2
Mohasco	371
Monfort of Colorado	365
Monsanto	48
Moore McCormack Resources	411
Morton-Norwich Products	338
Motorola	121
Murphy Oil	188
NCR	108
NL Industries	177

NVF	330
Nabisco	152
Nalco Chemical	426
Nashua	401
National Can	223
National Cooperative Refinery Association	470
National Distillers & Chemical	205
National Gypsum	308
National Semiconductor	307
National Service Industries	353
National Starch & Chemical	449
National Steel	100
New York Times	374
Newmont Mining	332
Norris Industries	436
North American Philips	148
Northrop	219
Northwest Industries	136
Norton	260
Norton Simon	130
Nucor	482
Occidental Petroleum	20
Ogden	174
Olin	195
Oscar Mayer	202
Outboard Marine	390
Owens-Corning Fiberglas	165
Owens-Illinois	95
PPG Industries	116
Pabst Brewing	378
Paccar	216
Pacific Resources	341
Parker-Hannifin	296
Peabody International	392
Peavey	373
Penn Central	187
Pennwalt	276
Pennzoil	159
PepsiCo	54
Perkin-Elmer	303
Pfizer	126
Phelps Dodge	237
Philip Morris	46
Phillips Petroleum	16
Pillsbury	125
Pitney Bowes	265
Polaroid	236
Porter (H.K.)	408
Potlatch	348
Procter & Gamble	24
Purex Industries	394
Quaker Oats	160
Quaker State Oil Refining	345
Questor	493
RCA	41
Ralston Purina	72
Raychem	491
Raytheon	69
Reichhold Chemicals	331
Republic Steel	98
Revere Copper & Brass	369
Revlon	172

Rexnord	288
Reynolds (R.J.) Industries	35
Reynolds Metals	101
Richardson-Merrell	271
Robertson (H.H.)	441
Rockwell International	46
Rohm & Haas	212
Rohr Industries	466
SCM	192
St. Joe Minerals	261
St. Regis Paper	143
Savannah Foods & Industries	472
Saxon Industries	381
Schering-Plough	209
Schlitz (Jos.) Brewing	328
Scott & Fetzer	418
Scott Paper	179
Scovill	327
Seagram (Joseph E.) & Sons	220
Searle (G.D.)	289
Shell Oil	12
Sheller-Globe	465
Sherwin-Williams	264
Signal Companies	85
Signode	387
Singer	140
Smith (A.O.)	388
Smith International	356
SmithKline	203
Sonoco Products	481
Southwest Forest Industries	372
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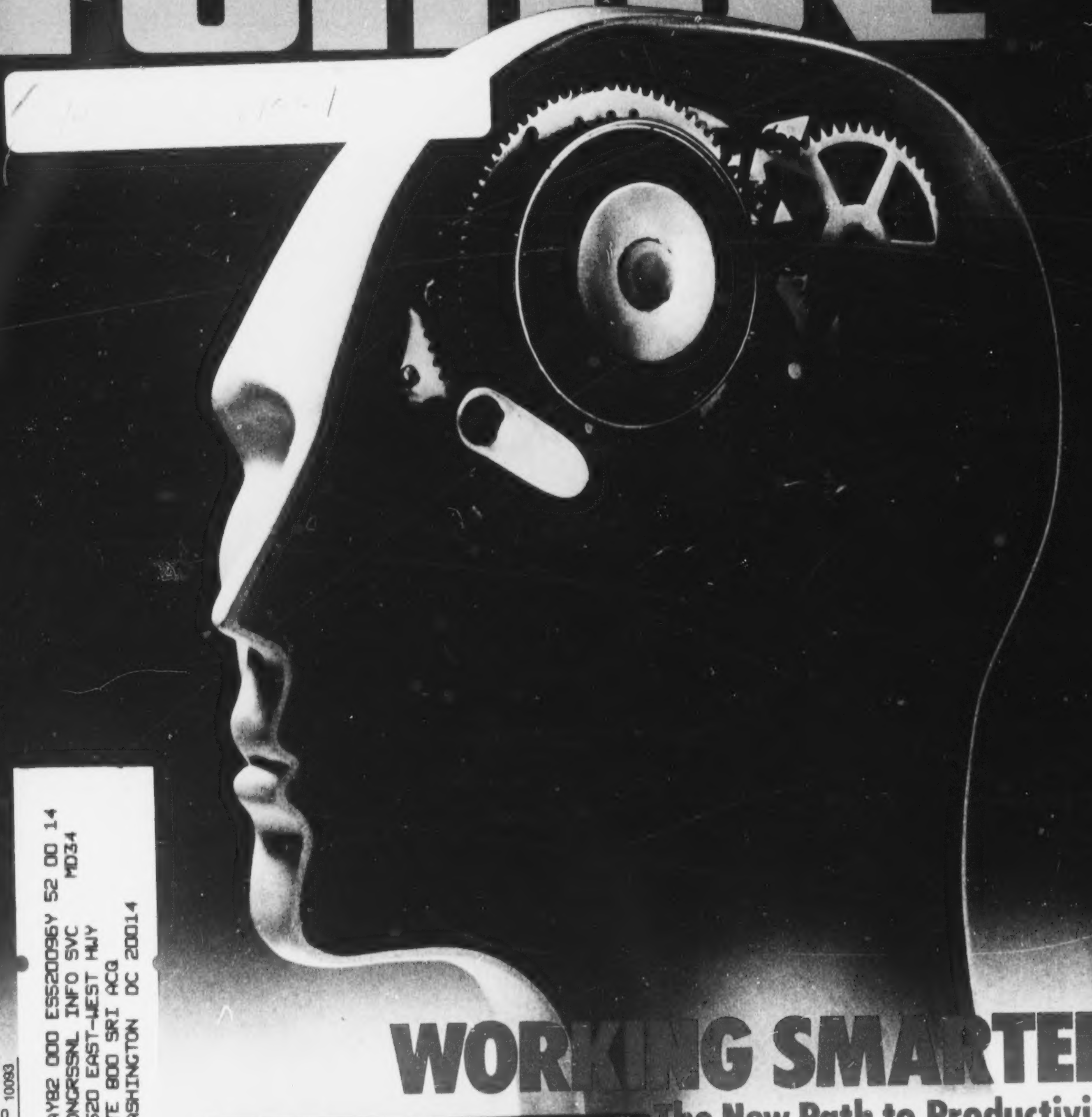

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Nick Aristovulos created and Shig Ikeda photographed the cover sculpture, which uses plastic, resin, and the works of a time clock to symbolize human intelligence. A FORTUNE series on working smarter begins on page 68.

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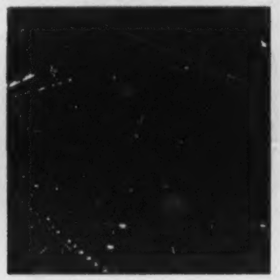

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THE WORLD

Getting Used to Mitterrand

by DONALD D. HOLT

When Socialist Francois Mitterrand toppled French President Valéry Giscard d'Estaing, widely credited for creating one of Europe's stronger economies, the mood in many American boardrooms was one of high anxiety.

For years the Socialist party has had an official list of companies it means to nationalize upon coming to power, including French subsidiaries of ITT and Honeywell. To companies not on the hit list, Mitterrand's campaign promises of higher minimum wages, shorter working hours, and increased unemployment benefits seemed inflationary at best.

Revelers were still waving the party's symbol—a rose in a fist—in the boulevards of Paris when local managers of U.S. firms began getting calls from their home offices they describe as panicky. "Don't worry," soothed one, "this is no revolution." Back in New York, consulting firms specializing in political analysis of France did a land-office business. The chief executive of one big multinational decided not to waste time with experts and briefing memos. He picked up the phone and called his friend Secretary of State Alexander Haig. Then he telephoned Mitterrand. The message from both, more or less: not to worry.

By the time Mitterrand was sworn in and began picking his cabinet, U.S. businessmen were pretty well calm. The consensus now among risk-assessment specialists, big U.S. banks, and most major American operators in France (see table, next page) is that for all Mitterrand's promises of nationalization and torrents of new social spending, nothing catastrophic is about to happen to the French economy. Some have even quietly decided that for a variety of reasons, France's first Socialist President in a generation might actually be good news.

The American stake in France is huge—U.S. direct investment in France is the

Research associate: David Weld Stevens

Portrait by Alan Reingold

third biggest in Europe, after Britain and West Germany, with a book value of $7.6 billion, according to U.S. Commerce Department figures for 1979—and it goes way back. Gillette started a razor-blade plant there in 1908, and Ford built its first tractor in France in 1917. International Harvester and John Deere have been making farm implements for decades. With that much history behind them, many companies remember times when things were a lot worse.

Philip Caldwell, chairman of Ford Motor Co., was lucky enough to have an old French hand just down the hall—public-affairs vice president Walter Hayes, an Englishman who spent ten years as vice chairman of Ford of Europe, mostly tracking social and political trends. Hayes decided Caldwell didn't need to wade through long staff memos, so he popped into the chairman's office to deliver a succinct message personally: There is no reason this should affect our business at all.

A man of the middle

Part of Hayes's confidence is based on his feeling that Mitterrand is no radical: "With his little country house, his sweaters, he seems more a man of the middle than the highbrow Giscard." But Hayes is also aware that Ford's big manufacturing operation, as well as those of GM and other industrial companies, provides thousands of jobs for Frenchmen and hundreds of millions in foreign exchange. "Our export dollar volume is greater than that of the whole Bordeaux wine industry," says Hayes. "Mitterrand would be a fool to tamper with that."

After the off-the-cuff judgments came more methodical assessments. "The guy on the spot may know his business," says John T. Basek of Multinational Strategies, a New York-based risk-assessment firm, "but the chief executive has to look four or five years down the road." Basek and partner Paul Sacks have helped half a dozen companies anticipate the next phase of the French drama—the election of a new National Assembly in mid-June.

When the French government listed the 53 largest foreign firms in France, half were American (the Ford transmission plant above is in Bordeaux). Cii Honeywell Bull, the computer maker, was unlisted because Honeywell owns 47%—less than the 51% minimum for inclusion.

The Formidable U.S. Economic Presence in France

Company	Industry	1979 Sales in France ($ millions)
IBM	computers	2,931
Ford	automotive	1,094
Exxon	chemicals	788
General Motors	automotive	662
Eastman Kodak	photography	656
Xerox	photocopiers	472
Bendix	automotive aircraft	457
International Harvester	farm machinery	444
United Technologies	systems	426
Colgate Palmolive	detergents, food	400
Minnesota Mining & Manufacturing	chemicals, pharmaceuticals	386
Deere	farm machinery	312
Procter & Gamble	detergents	275
Ralston Purina	feedstuff	266
General Foods	foods	257
CPC International	foods	253
Goodyear	tires, chemicals	236
Motorola	electronics	220
Caterpillar	heavy machinery	203
Corning Glass	glass	187
Singer	appliances	180
Firestone	tires	178
Rohm & Haas	chemicals	178
Merck	pharmaceuticals	169
Texas Instruments	electronics	162
Hewlett-Packard	electronics	135

Source: DATAR, Government of France (1980).

The extent to which Mitterrand can forge any kind of Socialist revolution depends on whether he can get a working majority in the Assembly, either by an outright Socialist victory or from an alliance with the Communist party. A French President has broad powers over foreign and monetary policy, and under Article 49 of the Constitution he can even enact such economic measures as indexing Social Security payments against the Assembly's will. But legislators can remove his Prime Minister through a vote of no confidence. So as a practical matter Mitterrand needs the Assembly with him to achieve the heart of his program—nationalization, higher minimum wages, and more social spending.

American businessmen seem convinced that the Socialists will pick up only a few seats beyond their current 41%, thus forcing a coalition. According to this rosy scenario, the fast-fading Communist party will do as poorly in the parliamentary voting as it did in the presidential election (the Communist candidate got only 15% of the vote), and Mitterrand will have no one to turn to but the conservatives, who appear to have mended the bitter split between Giscard and Paris Mayor Jacques Chirac. "Our analysts assume that there will be a center or center-right coalition," says David K. Sias, executive vice president of Bankers Trust in New York.

Behind this view stands one of American business's most comforting theories: that Mitterrand's election reflected not a swing to the left, but simply a personal rejection of Giscard after his seven years in

continued

Boeing and Pratt & Whitney are said to wonder whether Mitterrand's election might help them by weakening Airbus Industrie.

office. Says Felix Rohatyn, a partner in Lazard Frères, an investment banking house with close French ties, "A sufficient number of Frenchmen simply didn't like Giscard's lofty style. Ideology had nothing to do with it."

Banker Sias concedes that this analysis could "reflect wishful thinking." Indeed it could. The French opinion poll that came closest to predicting Mitterrand's winning margin is now forecasting a Socialist majority in the Assembly.

But if the Assembly does go left, Americans argue, that doesn't necessarily mean business will be in trouble. They think Mitterrand is a moderate with no intention of wrecking the French economy. His cabinet choices, especially Prime Minister Pierre Mauroy and banker Jacques Delors as finance minister, seemed to confirm this view. "He's quite realistic," says Orville Freeman, the former Kennedy Administration cabinet member who is now president of Business International, a political analysis firm. "He's no ingenue. He's a recognized statesman."

American businessmen like the fact that Mitterrand is experienced. He held a variety of cabinet posts in the mid-1950s when Socialists were last in power. "There's a parallel with Ronald Reagan here," says Benjamin Weiner, a former foreign-service officer who now heads Probe International, a risk-assessment firm. "Mitterrand's been campaigning for a generation. He's tough, he knows politics, and he knows personalities."

ITT's money loser

Much of the initial panic reflected businessmen's fear of nationalization. The day after the election, specialists on the Paris stock exchange had hundreds of sell orders but a dearth of buyers. A statement from Mitterrand's headquarters to the effect that the government would pay "full value" for any companies it took over calmed the market, and some stocks even started inching up. In any case there is uncertainty about how much Mitterrand means to nationalize, and how soon. The original list was drawn up in 1972 as part of the Common Program of the Left, and a lot has changed since then. ITT-France has pared down its operation by about half. Its biggest French subsidiary, Compagnie Générale de Constructions Téléphoniques, is the country's third-largest maker of telephone switching equipment—and a money loser. CGCT's only real charm for ITT is that it might win the contract that the government has been dangling in front of it to convert France to electronic switching.

When the question come up at ITT's annual meeting, Chairman Rand Araskog would say little more than that "we expect that the French government will act responsibly." The promise of compensation soothed nervous stomachs at ITT and Honeywell, but both companies obviously prefer to stay in the big French market.

For the French economy in general, nationalization would be less wrenching than might be expected because the government is already deeply involved in business. Three-fourths of the banks are government-owned, as are Renault, the automaker, which has a controlling interest in Detroit's AMC, and Dassault, the aerospace giant. The two French steel companies have been 60% nationalized since a government bailout two years ago. The government gets high marks for the way it manages. Renault is one of the world's most profitable carmakers (see "Renault Takes Its Hit Show on the Road," FORTUNE, May 4). "France is one of those countries in which government has involved itself in industry and come up with combinations that are economically viable," says Orville Freeman.

To some American executives, the Socialist clouds over France are notable mainly for their silver linings. U.S. bankers with Paris branches think nationalization of local banks might boost their volume. "Businessmen prefer dealing with the private sector," says David Sias.

Companies like Gillette that make and sell consumer products in France believe that Mitterrand's program of higher wages and social payments, though almost certain to be inflationary, will be good for sales, at least in the short term.

And though neither will come right out and say so, Boeing and Pratt & Whitney are wondering whether Mitterrand's election might help them too, if in a roundabout way. Their reasoning, according to industry sources, is that with Mitterrand replacing Giscard, Airbus Industrie, a West German-French consortium, might flounder. According to this theory, the company has been held together mainly by the personal relationship of Giscard and German Chancellor Helmut Schmidt. Though the Airbus A300 has been enormously successful, a lessening of French enthusiasm might threaten future Airbus models that would compete directly with Boeing's new planes.

A profit-margin squeeze

What worries American executives most is the way Mitterrand is apt to manage the economy. Though the French economy has faltered recently and unemployment has risen to 7.5%, its growth rate under Giscard was one of the best in Western Europe. American executives are concerned about the higher wages and social benefits Mitterrand has promised. "There will be quite a bit of squeezing of profit margins, so everyone will want to reassess their capital-investment plans," a General Motors executive told FORTUNE's Edward Meadows in Paris. Wage and price controls seem doomed to become part of Mitterrand's program if he wants to hold inflation down while getting employment up.

Another problem is that nervousness about the Mitterrand program has caused the franc to slip to historic lows against the dollar. Efforts by the Bank of France to support the franc have come to little. If Mitterrand can't restore confidence soon, much of what he wants to do will be undermined.

Still, Americans are doing their best to muster optimism about the new regime. And in the end, Ford's Walter Hayes probably speaks for most of them: "We've lived through a lot of governments since 1917. We can live through this one."

The 2nd 500

The FORTUNE Directory of the Largest U.S. Industrial Corporations

by BRIAN O'REILLY

Hit by a sharp recession in the spring and slow economic growth thereafter, FORTUNE's Second 500—the industrial companies ranking in size from 501 through 1,000—had a difficult year. For the first time since 1975, total profits of the group dropped—by 2.4%, to $6 billion. The total number of employees slumped to 1,702,416, the lowest level since FORTUNE began the list in 1970. Even though total sales were up by 9.2%, to $120 billion, they lagged well behind the year's 13.5% increase in the consumer price index—the deflator used by companies that include inflation-adjusted data in their annual reports. Forty-two of the companies lost money this year, as against the 29 losers on last year's list. Only 282 companies increased profits, far fewer than the 372 in 1979.

As detailed in the May 4 issue, it wasn't a great year for the First 500 either, but the largest industrials did manage to eke out a 3.6% gain in net income. Why the difference? The First 500 got a big boost from the big oil refiners, which increased profits by 28%. Refining accounted for 31% of total sales by the First 500 and only 2.3% of the Second 500's. The two largest industries in the Second 500 pretty much canceled each other out. Industrial- and farm-equipment manufacturers (11.6% of sales and 11.3% of income) saw median earnings rise 7%, while metal-products companies (9.2% of sales and 8% of income) suffered a 7.6% drop. In all, eight out of the 25 industry groups showed decreased median profits last year.

The growth star was a newcomer, Sealaska, No. 951, a seafood-products concern headquartered in Juneau, Alaska. Its sales soared 684%—from $17.6 million in 1979 to $137.9 million last year. Sealaska, created by Congress in 1971 as part of a settlement of native territorial claims, is owned and managed by native Alaskan Indians. For several years it dabbled cautiously in the transportation and building-products businesses. Last year, though, it broke out of the doldrums by buying up a seafood processor and harvesting some of its vast timber reserves.

Performance of the 2nd 500	1980	1979
Sales ($ billion)	120.0	109.9
Change in sales (%)	9.2	6.5
Profits ($ billion)	6.0	6.1
Change in profits (%)	−2.4	+16.9
Assets ($ billion)	86.9	78.8
Number of sales increases	414	462
Number of profit increases	282	372
Number of money losers	42	29
Median return on sales (%)	4.5	4.7
Median return on equity (%)	14.2	15.5
Median total return for the year (%)	21.57	26.88
Number of employees (million)	1.7	1.8

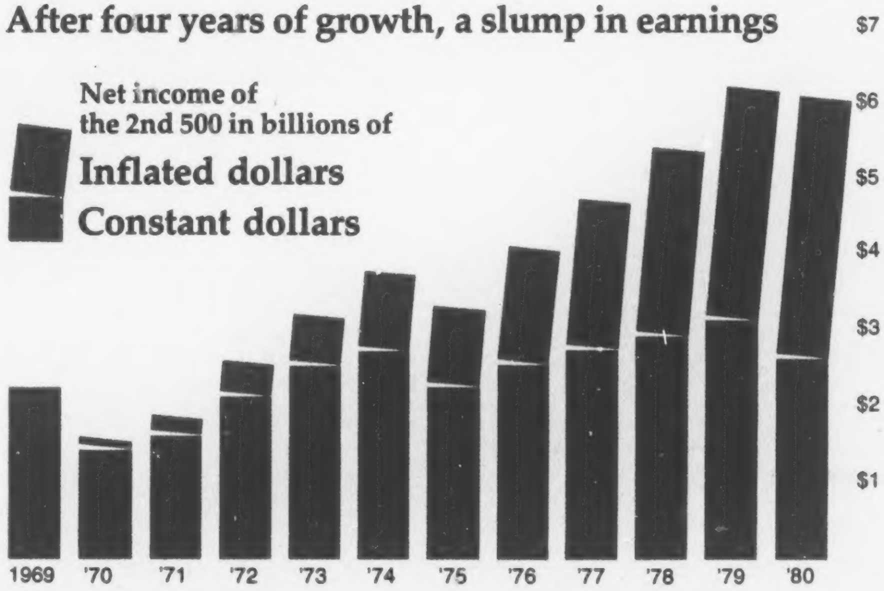
From top to bottom

The top ranking in sales among the Second 500 went to E-Systems, a manufacturer of sophisticated surveillance and reconnaissance equipment for the defense industry. Its $442.2 million in revenues (up $48.5 million over last year) brought it along seven slots, from No. 508 to No. 501—and was just $5.4 million short of those of the bottom-ranked company on the First 500, Fiat-Allis.

In the bottom sales slot on the Second 500 list is Reading Industries, which turns out copper tubing used in plumbing and air conditioning. With revenues of $124.7 million, it stands a long, long way from the nation's largest industrial, Exxon, 827 times larger in revenues. The pipe maker hardly threatened Exxon in earnings either. It lost $1.9 million last year.

As always with these smaller compa-

After four years of growth, a slump in earnings



nies, there was a lot of flux. Sixty-two companies departed from the list this year—neither a record high nor low. Fifteen advanced to the First 500, ten others were acquired by companies now on the first list, and eight went private or were acquired by companies that do not publish figures. Playboy Enterprises (1979 rank: 602) dropped off the list this year for a different reason. It is no longer classified as an industrial company, since publishing now accounts for less than half of its revenues. The rest came from its casinos and hotels, which have been growing faster than the magazines.

The best news of 1980 was provided by the stock market, which looked beyond the slump in earnings and bid up the shares of Second 500 companies. The median total return—dividends plus stock appreciation—came in at 21.57%, slightly better than the 21.05% median total return for the First 500, though down some from last year (see table). Stocks of mining and oil-producing companies fared the best, enjoying a total return last year of 64%. Close behind came the soap and cosmetics industry, with a total return for 1980 of 52%. But the market can be fickle; a better measure is total return over ten years. The ten-year median was 10.88%—not a big payoff in inflationary times but better than the First 500's ten-year median of 9.44%.

The prime investment

Of individual companies, the highest flier was Prime Computer, a ten-year-old Massachusetts-based maker of small and medium-size computers. Though it paid no cash dividends, the company's stock rose from near $11 on January 1 to more than $41 at year-end—a hefty 273% total return to investors. Only a little off that pace, with a return of 259%, was Sullair, a maker of compressors that are in big demand to pump steam into oil wells to improve oil recovery.

A maker of pollution-control gear, Combustion Equipment Associates, gave shareholders the roughest ride. The company lost $23 million, and an investment in the stock would have sunk by 70%. But the company suffering the sharpest reversal of fortune was UNC Resources, a uranium producer. Its annual report notes ruefully that its fiscal year began three days after the nuclear accident at Three Mile Island. UNC Resources, which had earned $43.8 million in 1979, *lost* $34.2 million one year later. One problem was a costly spill of 95 million gallons of radioactive mill tailings in New Mexico. In addition, demand for uranium was flat because of a moratorium on nuclear-plant licenses after Three Mile Island. In all, the company lost $7 million from operations and $29.3 million from the write-off of a uranium-recovery venture.

Companies justifying their investors' confidence or patience were numerous enough, however. Ten of the Second 500 posted increases of 275% or more in earnings. The biggest gain was by Imperial Sugar, whose earnings rose 14 times over last year, from $511,000 to $7.7 million. Not far behind came DHJ Industries, a textile manufacturer, whose net income rose tenfold, from $910,000 in 1979 to $9.1 million last year. DHJ is a major supplier of denim to companies that turn out jeans for major retailers like Sears and K mart. Denim sales and prices dropped sharply in fiscal 1979, when the retailers cut back orders, but demand picked up again last year.

Of companies turning a profit, none posted an odder figure than Illini Beef Packers: it earned just $250 on sales of $306 million. That works out to a return on sales of .00008%. Unfortunately for the company's accountants, who undoubtedly labored hard to determine the figure, a rounding to the nearest $1,000 reduces the profit to zero, which is the way it appears on this year's list.

Finally, some baseball fans will presumably be cheered to know that American Ship Building had a very good year—its chairman, George Steinbrenner, is the principal owner of the New York Yankees. Earnings at ASB nearly quadrupled—to $9.4 million on sales of $184.8 million—the eighth-best performance on the list. Leading the company's rise in profits was a Tennessee division that turned out a record 153 river and ocean barges. That's big-league barge building. ▣

THE SECOND 500 LARGEST INDUSTRIAL CORPORATIONS (ranked by sales)§

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
501	508	**E-Systems** (Dallas)	442,229	235,736	95	12,759	180	140,209	74
502	507	**Mallinckrodt** (St. Louis)	441,795	356,924	26	36,002	27	253,903	14
503	541	**Geosource** (Houston)[1]	441,342	304,827	39	32,732	32	146,608	62
504	553	**North American Coal** (Cleveland)	439,641	844,174	3	10,249	227	82,162	202
505	486	**Jonathan Logan** (Secaucus, N.J.)	438,716	251,845	78	6,637	323	141,474	71
506	489	**Royal Crown Companies** (Atlanta)	438,076	238,135	90	10,169	231	103,108	141
507	574	**Titanium Metals Corp. of America** (Pittsburgh)	435,088	231,332	102	53,512	11	137,344	78
508	492	**Ceco** (Oak Brook, Ill.)	434,939	216,066	122	16,013	142	117,321	107
509	480	**Barnes Group** (Bristol, Conn.)	433,897	249,729	82	24,262	69	141,830	69
510	531	**Riegel Textile** (Greenville, S.C.)[1]	433,523	249,161	83	18,024	122	130,135	87
511	515	**A.H. Robins** (Richmond, Va.)	432,328	390,570	23	25,470	60	280,394	10
512	637	**Ampco-Pittsburgh** (Pittsburgh)	430,711	209,894	134	15,084	152	88,107	178
513	451	**Arvin Industries** (Columbus, Ind.)	428,849	304,599	40	7,588	292	171,976	41
514	526	**Deluxe Check Printers** (St. Paul)	428,488	259,009	72	44,456	15	183,134	34
515	490	**Roper** (Kankakee, Ill.)[2]	428,253	175,418	187	6,943	312	82,922	198
516	458	**Northwestern Steel & Wire** (Sterling, Ill.)[2]	426,072	339,375	30	22,718	77	251,030	15
517	582	**Rath Packing** (Waterloo, Iowa)[1]	424,705	63,936	477	3,348**	388	2,674	493
518	548	**Brown-Forman Distillers** (Louisville, Ky.)[3]	423,391*	461,338	15	50,388	13	280,203	11
519	532	**Milton Bradley** (Springfield, Mass.)	420,732	299,140	42	29,915	44	185,238	33
520	525	**American Greetings** (Cleveland)[4]	420,134	342,871	28	25,638	59	188,333	30
521	535	**American Maize-Products** (Stamford, Conn.)	413,707	211,940	130	10,706	214	99,254	153
522	581	**Shaklee** (San Francisco)[1]	411,331	173,191	193	12,071	193	86,979	186
523	528	**Knudsen** (Los Angeles)	411,191	133,929	278	6,703	320	43,965	384
524	642	**Holly** (Dallas)[2]	410,540	134,765	270	9,181	256	50,055	350
525	514	**Dairylea Cooperative** (Pearl River, N.Y.)[5]	408,523	88,407	419	N.A.[6]		11,422	487
526	522	**Liquid Air** (San Francisco)[7]	408,249	444,904	17	29,448	46	198,266	25
527	573	**Palm Beach** (Cincinnati)	407,754	214,184	127	14,169	162	70,687	244
528	473	**Butler Manufacturing** (Kansas City, Mo.)	407,562	248,510	84	18,354	119	158,786	51
529	557	**Seaboard Allied Milling** (Chestnut Hill, Mass.)[8]	406,612	119,038	314	5,818	337	53,113	331
530	530	**Harvey Hubbell** (Orange, Conn.)	406,019	257,718	73	29,936	43	159,215	47
531	542	**Acme-Cleveland** (Cleveland)[1]	405,236	236,712	92	17,225	132	117,831	104
532	533	**Toro** (Minneapolis)[2]	402,000	183,590	167	5,272	348	70,234	246
533	518	**Snap-on Tools** (Kenosha, Wis.)	401,799	312,619	37	38,322	22	191,335	28
534	506	**Illinois Tool Works** (Chicago)	401,654	343,588	27	44,266	16	262,437	12
535	509	**Armstrong Rubber** (New Haven, Conn.)[1]	401,325	280,277	55	(16,395)	486	100,575	150
536	539	**Kerr Glass Manufacturing** (Los Angeles)	400,467	262,408	69	12,431**	185	101,292	147
537	510	**Ametek** (New York)	400,180	254,005	77	21,665	84	126,670	89
538	544	**Fort Howard Paper** (Green Bay, Wis.)	397,403	508,948	10	68,700	4	334,754	5
539	479	**Talley Industries** (Mesa, Ariz.)[5]	396,142	291,418	47	(5,870)	472	93,357	167
540	499	**Keystone Consolidated Industries** (Peoria, Ill.)[9]	396,136	231,814	101	(3,450)	464	110,099	123
541	546	**Houston Oil & Minerals** (Houston)	394,797	1,077,692	2	79,550	3	312,645	6
542	597	**Amdahl** (Sunnyvale, Calif.)	394,351	389,606	24	15,221	149	239,575	16
543	540	**Curtiss-Wright** (Wood-Ridge, N.J.)	393,015	405,196	21	39,746	19	281,107	9
544	496	**Stanadyne** (Windsor, Conn.)	392,703	199,779	142	13,401	170	124,431	94
545	578	**VSI** (Pasadena, Calif.)[9]	391,837	233,783	99	27,323	54	118,033	103
546	516	**Tyson Foods** (Springdale, Ark.)[1]	390,319	192,260	154	1,165	433	45,085	374
547	624	**Oak Industries** (Rancho Bernardo, Calif.)	385,586	408,707	20	20,082	100	159,116	48
548	572	**Carlisle** (Cincinnati)	380,800	196,281	148	25,776	58	104,299	139
549	568	**Phillips-Van Heusen** (New York)[10]	380,668	222,294	114	7,705	287	90,228	176
550	579	**Universal Foods** (Milwaukee)[1]	380,242	180,855	174	10,541	216	86,365	189

THE DEFINITIONS AND CONCEPTS UNDERLYING THE FIGURES IN THIS DIRECTORY ARE EXPLAINED ON PAGE 218.

§Company sales are ranked 501 to 1,000; all other categories are ranked 1 to 500.

N.A. Not available

*Does not include excise taxes; see the explanation of "sales" on page 218.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[1] Figures are for fiscal year ending September 30, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	INDUSTRY CODE
10,624	3	2.9	329	9.1	355	1.87	3.12	N.A.	—		55.11	118	—		36
4,801	100	8.1	97	14.2	245	3.82	4.37	0.66‡	19.19	101	86.07	55	12.63	162	28
6,800	35	7.4	118	22.3	58	2.77	1.83	N.A.	—		143.75	13	—		38
6,595	42	2.3	358	12.5	288	3.07	3.84	0.58	18.13	115	(9.21)	388	16.44	105	10
7,800	18	1.5	392	4.7	409	1.28	(7.48)	1.98‡	(4.27)	322	(2.62)	358	(10.20)	366	23
5,000	88	2.3	359	9.9	344	1.24	2.01	0.96	2.59	296	10.79	288	3.48	284	49
1,898	389	12.3	36	39.0	11	N.A.	N.A.	N.A	—		—		—		33
7,086†	26	3.7	286	13.6	262	4.57	3.74	1.91	9.12	241	33.04	183	5.35	266	34
6,882	31	5.6	194	17.1	168	3.51	3.68	0.81	15.79	149	26.25	211	14.14	139	34
9,500†	9	4.2	262	13.9	257	4.73	3.55	0.61	22.73	65	26.39	210	14.44	131	22
5,600	65	5.9	180	9.1	356	1.01	1.71	0.62	5.00	272	45.56	142	2.03	301	42
3,897†	161	3.5	298	17.1	167	3.92	2.62	0.53**	22.15	67	30.97	194	18.87	83	37
7,865	17	1.8	383	4.4	414	0.92	2.88	0.48	6.72	259	20.79	236	6.09	251	40
9,729	6	10.4	49	24.3	44	3.90	3.37	0.79	17.31	122	54.93	119	15.52	119	27
5,900	59	1.6	388	8.4	365	1.36	1.93	1.03	2.82	294	19.26	244	2.22	299	45
3,613	188	5.3	207	9.0	358	3.03	5.34	2.43	2.23	299	(8.36)	384	4.68	272	33
3,220	228	0.8	423	125.2	1	2.15**	(1.25)	1.61**	2.93	292	(25.65)	435	(8.17)	362	20
1,991	374	11.9	37	18.0	148	3.97	3.15	1.09	13.80	177	41.95	150	13.64	145	49
5,978	56	7.1	128	16.1	192	4.17	4.59	0.85	17.24	125	3.29	326	13.21	152	47
13,072	1	6.1	170	13.6	264	1.88	1.68	0.62	11.73	202	1.21	340	(1.86)	340	27
3,161	234	2.6	343	10.8	323	2.07	1.37	0.81	9.84	232	25.55	214	13.05	154	20
1,200	454	2.9	324	13.9	253	1.92	3.43	N.A.	—		96.96	42	—		42
2,128	358	1.6	387	15.2	217	2.46	2.23	1.09	8.48	247	17.88	253	8.40	225	20
351	494	2.2	362	18.3	141	1.10	0.84	(0.03)‡	—		5.17	316	27.16	26	29
1,700	417	—		—		N.A.	N.A.	N.A.	—		—		—		20
4,200	134	7.2	124	14.9	224	2.76	2.49	N.A.	—		31.16	193	—		28
8,600	13	3.5	299	20.0	105	3.56	3.71	0.08	46.16	7	23.27	224	15.97	112	23
3,701	173	4.5	244	11.6	307	3.30	4.21	0.37	24.46	51	18.54	247	18.94	82	34
735	480	1.4	395	11.0	317	3.91	5.58	1.26	11.99	200	21.29	233	13.86	143	20
7,638	20	7.4	119	18.8	131	2.43	2.16	0.82	11.48	206	28.64	200	11.06	186	36
6,493	46	4.3	255	14.6	230	4.02	4.38	1.36**	11.45	209	2.96	330	13.32	148	45
2,680	289	1.3	403	7.5	379	0.90	3.12	0.72	2.26	298	(39.66)	453	6.24	248	45
6,200	52	9.5	68	20.0	106	1.92	2.16	0.40	16.98	129	(22.96)	426	12.15	169	34
6,800	34	11.0	43	16.9	174	3.62	3.37	0.96	14.19	170	5.08	317	8.40	226	34
4,928	93	—		—		(10.17)	4.39	2.30	—		13.43	276	(0.01)	326	30
5,100	84	3.1	312	12.3	291	2.23**	1.58	N.A.	—		3.18	327	—		32
6,700	39	5.4	201	17.1	169	2.02	2.11	0.10	35.06	21	34.89	175	20.90	68	38
3,744	172	17.3	10	20.5	92	2.55	2.23	0.35	21.97	70	26.02	212	—		26
7,800	19	—		—		(1.65)	1.52	0.41	—		(34.41)	446	(1.21)	335	38
5,500	68	—		—		(1.84)	0.40	2.11	—		(10.10)	393	(3.47)	347	33
1,395	442	20.1	6	25.4	40	2.53	2.07	(0.09)‡	—		142.51	15	—		10
4,021	144	3.9	277	6.4	393	0.83	1.02	N.A.	—		32.62	188	—		44
2,678	290	10.1	56	14.1	247	4.75	4.05	(0.68)	—		98.59	40	17.59	94	45
6,445†	47	3.4	302	10.8	325	2.80	4.35	0.85	12.66	192	32.35	190	15.07	126	34
5,203	79	7.0	135	23.1	51	4.35	3.44	0.89	17.20	127	—		—		41
7,000	29	0.3	443	2.6	430	0.30**	2.32	0.26	1.44	306	51.49	128	25.06	37	20
11,434	5	5.0	214	12.6	294	1.63	1.50	(0.10)	—		22.72	226	30.37	17	36
5,029†	86	6.8	140	24.7	42	5.56	4.08	0.70	23.03	61	250.55	3	32.17	11	34
9,000	11	2.0	372	8.5	364	2.48	2.74	1.49	5.23	270	(18.76)	417	1.47	310	23
2,800	271	2.8	332	12.3	290	1.52	1.54	0.84	6.11	262	(10.80)	397	5.46	261	20

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[2] Figures are for fiscal year ending July 31, 1380.

[3] Figures are for fiscal year ending April 30, 1980.

[4] Figures are for fiscal year ending February 29, 1980.

[5] Figures are for fiscal year ending March 31, 1980.

[6] Cooperatives provide only "net margin" figures, which are not comparable with the net-income figures in these listings.

[7] Name changed from Liquid Air Corp. of North America, December 31, 1980.

[8] Figures are for fiscal year ending May 31, 1980.

[9] Figures are for fiscal year ending June 30, 1980.

[10] Figures are for fiscal year ending January 31, 1980.

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
551	●	**Keystone Foods** (Bryn Mawr, Pa.)[4]	379,595	108,910	348	4,001	378	18,947	474
552	614	**Research-Cottrell** (Bedminster, N.J.)[11]	379,594	271,920	64	7,535	294	91,381	174
553	564	**Transamerica Delaval** (Lawrenceville, N.J.)[12]	379,300	277,200	57	28,800	49	157,700	53
554	565	**Stone Container** (Chicago)	379,188	254,130	76	21,311	91	114,169	113
555	549	**Cleveland-Cliffs Iron** (Cleveland)	377,275	594,983	5	50,226	14	343,383	4
556	545	**Lukens Steel** (Coatesville, Pa.)	375,883	250,631	80	4,705	361	136,808	80
557	645	**Alaska Interstate** (Houston)	374,396	593,631	6	63,141	5	222,472	19
558	600	**James River Corp. of Virginia** (Richmond, Va.)[3]	373,946	168,590	202	16,659	136	61,844	287
559	603	**Georgia Kraft** (Rome, Ga.)	[illegible]3,502	507,689	11	35,014	29	216,073	21
560	675	**Mesa Petroleum** (Amarillo, Tex.)	368,905	1,426,850	1	95,236	2	509,775	1
561	584	**Copeland** (Sidney, Ohio)[1]	367,561	173,723	192	19,141	109	99,025	154
562	668	**Southland Royalty** (Forth Worth, Tex.)	366,571	612,998	4	62,289	6	107,173	132
563	555	**Albany International** (Albany, N.Y.)	365,525	318,800	34	25,906	56	189,577	29
564	598	**Pittsburgh-Des Moines** (Pittsburgh)[13]	361,237	167,940	206	7,769	282	67,075	260
565	529	**UMC Industries** (Stamford, Conn.)	360,684	228,938	104	10,976	208	104,917	136
566	621	**Franklin Mint** (Franklin Center, Pa.)	360,086	263,532	66	2,208	409	128,731	88
567	561	**Flowers Industries** (Thomasville, Ga.)[8]	357,887	152,792	236	10,567	219	68,942	252
568	554	**Longview Fibre** (Longview, Wash.)[11]	357,868	264,598	65	1,324	431	179,525	36
569	536	**Easco** (Baltimore)	357,287	172,392	195	3,718	385	64,864	269
570	599	**Cross & Trecker** (Bloomfield Hills, Mich.)[1]	355,385	275,337	59	33,397	31	155,112	56
571	560	**Itek** (Lexington, Mass.)	355,102	251,782	79	8,926	259	119,077	101
572	538	**Manhattan Industries** (New York)[10]	354,190	149,010	237	(13,150)	482	44,776	377
573	605	**Pettibone** (Chicago)[5]	353,904	293,242	45	11,947	195	102,695	143
574	622	**Prentice-Hall** (Englewood Cliffs, N.J.)	353,413	296,373	44	30,805	41	159,010	49
575	505	**Interpace** (Parsippany, N.J.)	351,973	286,493	50	14,993	155	150,055	60
576	593	**Gates Learjet** (Wichita)[3]	351,131	221,606	116	13,264	171	83,640	195
577	686	**MEI** (Minneapolis)	349,720	197,455	145	19,736	104	86,466	188
578	747	**Amalgamated Sugar** (Ogden, Utah)	349,645	217,890	120	17,768	125	98,849	156
579	585	**Wometco Enterprises** (Miami)	349,426	337,606	31	20,797	96	145,439	65
580	521	**Maytag** (Newton, Iowa)	349,203	234,728	98	35,519	28	195,269	26
581	566	**Robertshaw Controls** (Richmond, Va.)	349,030	218,144	119	10,182	230	108,260	130
582	580	**Meredith** (Des Moines, Iowa)[9]	349,000	277,086	58	21,399	89	130,671	85
583	543	**Allen Group** (Melville, N.Y.)	348,491	191,296	155	8,835	263	81,738	203
584	601	**Standex International** (Salem, N.H.)[9]	347,480	235,573	96	19,442	106	117,808	105
585	588	**Diebold** (Canton, Ohio)	346,928	199,674	143	21,238	92	137,257	79
586	660	**Wisconsin Dairies Cooperative** (Baraboo, Wis.)[5]	346,730	67,472	468	N.A.[6]		28,297	456
587	654	**Mississippi Chemical** (Yazoo City, Miss.)[9]	341,576	401,271	22	N.A.[6]		146,103	63
588	609	**Graniteville** (Graniteville, S.C.)	341,120	170,192	200	11,092	205	104,673	138
589	633	**SPS Technologies** (Jenkintown, Pa.)	341,114	222,407	113	21,810	83	108,565	128
590	587	**Zurn Industries** (Erie, Pa.)[5]	338,711	221,410	117	15,803	144	98,489	158
591	569	**DeSoto** (Des Plaines, Ill.)	337,608	166,567	210	11,294	203	102,055	144
592	527	**Stewart-Warner** (Chicago)	336,167	236,188	94	18,588	113	175,004	39
593	586	**Olympia Brewing** (Tumwater, Wash.)	335,758*	136,427	267	2,782	395	75,685	221
594	589	**Rubbermaid** (Wooster, Ohio)	335,240	214,002	128	14,178	161	138,400	77
595	595	**Alton Packaging** (Alton, Ill.)[15]	334,338	181,115	173	7,802‡	281	87,557	182
596	482	**Skyline** (Elkhart, Ind.)[8]	333,830	125,277	293	6,034	334	113,200	116
597	*502*	***Hanna Mining*** *(Cleveland)*	333,534	588,775	7	38,690	20	416,576	2
598	611	**Dr Pepper** (Dallas)	333,165	147,656	243	26,543	55	109,928	124
599	626	**Media General** (Richmond, Va.)	332,460	285,897	51	28,293	50	176,387	38
600	604	**Bandag** (Muscatine, Iowa)	330,918	224,237	108	27,352	53	155,962	55

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

*Does not include excise taxes; see the explanation of "sales" on page 218.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[11] Figures are for fiscal year ending October 31, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
987	472	1.1	410	21.1	77	1.60	1.37	N.A.	—		(5.89)	377	—		20
3,069	243	2.0	374	8.2	368	81.66	1.13	0.92**	6.08	263	(9.64)	389	(7.70)	360	45
5,466	71	7.6	112	18.3	142	N.A.	N.A.	N.A.	—		—		—		45
3,625	187	5.6	192	18.7	134	2.78	2.01	0.32	24.13	57	2.03	337	18.40	87	26
8,487	14	13.3	27	14.6	229	4.12	3.85	1.18	13.32	185	6.02	311	12.70	160	10
4,059	139	1.3	405	3.4	424	0.90	1.44	0.70	2.54	297	6.39	308	7.65	234	33
1,356	444	16.9	13	28.4	26	5.22	1.31	0.74	21.57	77	71.66	85	12.69	161	10
3,700	178	4.5	247	26.9	29	3.24	3.25	N.A.	—		23.90	220	—		26
3,113	239	9.4	72	16.2	189	N.A.	N.A.	N.A.	—		—		—		26
705	483	25.8	3	18.7	132	2.78	8.85	0.39	21.70	74	115.15	26	26.95	27	10
4,254	130	5.2	215	19.3	119	3.41	1.45	0.88	14.51	165	30.07	196	10.37	195	45
520	491	17.0	12	58.1	4	1.34	1.19	0.10	29.63	35	159.56	9	44.12	3	10
6,511	43	7.1	129	13.7	261	3.87	3.52	1.33	11.27	211	(4.17)	365	—		22
4,257	129	2.2	366	11.6	305	3.05	4.54	0.53	19.12	103	142.67	14	28.59	21	34
6,425	48	3.0	318	10.5	331	1.80	2.30	1.13	4.77	276	(9.76)	390	5.45	262	45
3,236	226	0.6	435	1.7	437	N.A.	1.78	0.34	—		164.94	8	12.27	167	46
7,000	28	3.0	321	15.3	214	1.70	1.69	0.44	14.47	166	36.71	165	13.90	142	20
3,450	204	0.4	440	0.7	444	0.11	3.36	0.84	(18.40)	337	2.19	334	16.05	111	26
5,346	74	1.0	411	5.7	401	0.97	2.30	2.00	(6.98)	328	1.18	341	5.62	259	34
4,300	126	9.4	71	21.5	67	2.70	2.15	0.46[14]	19.36	97	49.26	133	26.56	29	45
6,402	49	2.5	346	7.5	380	2.22	1.70	1.20	6.35	260	11.15	285	(0.34)	326	38
6,865	32	—		—		(5.21)	2.98	1.56	—		12.24	282	(0.54)	328	23
4,800	101	3.4	303	11.6	304	4.78	4.14	0.41	27.84	42	(4.30)	366	13.75	144	45
5,800	61	8.7	86	19.4	118	3.11	2.80	1.50	7.56	254	(8.65)	385	(3.65)	350	27
6,200	53	4.3	254	10.0	342	3.32	3.94	1.35	9.42	239	16.26	261	6.84	243	32
5,496	70	3.8	281	15.9	201	2.55	2.45	(0.05)	—		75.62	73	38.66	5	41
3,690	180	5.6	191	22.8	53	2.34	1.90	(4.69)‡	—		58.18	111	15.26	121	49
1,500†	430	5.1	218	18.0	149	8.78	2.72	2.53	13.25	186	91.66	47	15.50	120	20
6,710	38	6.0	174	14.3	236	1.56	1.48	0.50	12.05	199	17.70	254	11.11	185	49
3,592†	192	10.2	53	18.2	144	2.67	3.39	1.70	4.62	277	5.92	312	2.37	296	36
9,566	8	2.9	326	9.4	351	2.61	2.20	1.35	6.81	258	15.57	262	0.65	317	38
4,000	147	6.1	168	16.4	188	6.87	5.28	2.32	11.47	207	59.62	105	15.54	117	27
4,900	95	2.5	345	10.8	322	2.03	2.44	0.76	10.32	224	23.47	223	8.12	231	40
6,000	55	5.6	193	16.5	183	2.96	2.58	0.66	16.19	141	4.45	322	12.74	159	34
5,906	58	6.1	169	15.5	208	3.72	3.19	1.57	9.01	243	58.21	110	4.84	269	36
550	490	—		—		N.A.	N.A.	N.A.	—		—		—		20
1,654	424	—		—		N.A.	N.A.	N.A.	—		—		—		28
6,775	36	3.3	307	10.6	329	2.54	1.97	0.83	11.83	201	9.67	293	9.50	207	22
6,664†	40	6.4	158	20.1	104	4.56	3.90	(1.93)	—		43.22	147	25.23	35	34
4,600	110	4.7	235	16.0	196	2.84	2.46	0.51	18.73	106	(4.14)	364	3.76	282	45
3,903	155	3.3	304	11.1	314	2.05	1.71	0.96	7.88	252	13.70	272	(1.19)	334	28
8,000†	15	5.5	195	10.6	328	3.58	4.19	1.67	7.92	251	2.84	331	9.46	210	38
2,164	355	0.8	422	3.7	420	1.08	2.60	1.91	(5.54)	325	3.89	325	(0.83)	332	49
4,183	136	4.2	256	10.2	334	1.84	2.96	0.72	9.84	233	(10.27)	395	5.65	256	30
4,000	150	2.3	357	8.9	360	3.41‡	1.60	N.A.	—		9.43	294	—		26
2,653	294	1.8	380	5.3	404	0.54	1.21	0.99	(5.88)	326	19.22	245	(6.87)	358	37
3,829	164	11.6	39	9.3	353	4.34	6.14	3.20	3.09	291	(13.52)	406	(1.47)	337	10
2,300	335	8.0	100	24.1	45	1.31	1.17	0.76	5.60	266	0.79	346	2.95	291	49
4,943	91	8.5	89	16.0	197	2.40	3.42	0.92	10.06	227	16.70	258	8.33	228	27
2,481	315	8.3	93	17.5	159	2.27	1.99	0.31	22.03	68	19.45	242	8.46	223	30

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[12] Wholly owned by Transamerica.

[13] Name changed from Pittsburgh-Des Moines Steel, January 1, 1981.

[14] Figure is for Cross.

[15] Name changed from Alton Box Board, February 25, 1981.

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
601	640	**Cox Broadcasting** (Atlanta)	329,669	461,345	14	56,399	9	285,495	8
602	666	**Giddings & Lewis** (Fond du Lac, Wis.)	327,020	197,023	147	31,362	39	132,551	84
603	552	**Bird & Son** (East Walpole, Mass.)	326,689	169,996	201	(3,584)	465	104,755	137
604	606	**Hillenbrand Industries** (Batesville, Ind.)[16]	326,483	247,498	85	25,010	65	146,736	61
605	551	**Amerace** (New York)	326,379	215,463	125	10,097	232	116,486	108
606	653	**Kennametal** (Latrobe, Pa.)[8]	325,936	285,752	52	36,714	24	186,233	32
607	577	**Dibrell Brothers** (Danville, Va.)[9]	325,329	85,105	429	3,650	386	35,763	422
608	795	**Marion** (Mobile, Ala.)[10]	324,351	189,173	160	19,247	107	58,223	305
609	620	**Cooper Tire & Rubber** (Findlay, Ohio)	323,953	181,784	172	12,825	179	60,438	295
610	592	**American Crystal Sugar** (Moorhead, Minn.)[17]	322,946	259,161	71	N.A.[6]		96,512	160
611	967	**M/A-Com** (Burlington, Mass.)[1]	322,480	244,119	86	24,905	66	140,552	73
612	658	**NCH** (Irving, Tex.)[3]	322,321	215,754	124	27,963	51	138,833	76
613	550	**Reeves Brothers** (New York)[9]	321,969	182,778	169	16,437	140	118,175	102
614	724	**Tyco Laboratories** (Exeter, N.H.)[8]	320,268	222,985	112	22,583	79	87,382	184
615	699	**Datapoint** (San Antonio)[2]	318,826	223,623	110	33,476	30	169,132	42
616	558	**UNR Industries** (Chicago)[18]	316,415	217,199	121	(4,421)	467	61,765	288
617	559	**National-Standard** (Niles, Mich.)[1]	312,876	190,704	156	5,337	346	111,210	122
618	629	**Grolier** (Danbury, Conn.)	312,658	288,755	48	9,279	254	(6,344)	498
619	631	**General Portland** (Dallas)	312,504	320,775	33	25,274	61	181,222	35
620	648	**Rorer Group** (Fort Washington, Pa.)	312,454	274,369	60	32,283	34	158,250	52
621	656	**OKC** (Dallas)[1]	311,438	155,660	231	52,224	12	76,585	218
622	661	**Associated Coca-Cola Bottling** (Daytona Beach, Fla.)	311,318	133,742	279	20,652	97	102,043	145
623	646	**Avondale Mills** (Sylacauga, Ala.)[17]	310,325	133,985	276	7,003	309	91,879	172
624	524	**Penn-Dixie Industries** (New York)	310,000[19]	N.A.		N.A.		N.A.	
625	628	**Pittway** (Northbrook, Ill.)	308,489	221,737	115	23,845	71	160,734	45
626	639	**Management Assistance** (New York)[1]	307,998	187,527	162	388	446	82,646	200
627	●	**Ag-MET** (Woonsocket, R.I.)[5]	307,202	195,127	150	7,686**	290	18,039	475
628	643	**Illini Beef Packers** (Geneseo, Ill.)[5]	306,155	29,597	499	0		10,012	489
629	641	**Mine Safety Appliances** (Pittsburgh)	305,500	206,854	136	16,468	138	115,256	109
630	778	**Oneida** (Oneida, N.Y.)[10]	303,171	193,559	152	15,296	147	73,036	234
631	571	**Lamson & Sessions** (Cleveland)	302,291	223,505	111	(15,479)	485	68,324	254
632	715	**Homestake Mining** (San Francisco)	302,213	367,111	25	101,591	1	288,347	7
633	685	**Harte-Hanks Communications** (San Antonio)	301,916	341,247	29	22,697	78	144,223	66
634	591	**Echlin Manufacturing** (Branford, Conn.)[17]	301,400	237,145	91	8,769	264	144,164	67
635	608	**Republic** (Los Angeles)[2]	300,797	179,087	178	12,564	183	85,117	191
636	583	**Coleman** (Wichita)	300,481	218,617	118	14,090	163	117,437	106
637	625	**Guardian Industries** (Northville, Mich.)	299,072	318,388	35	27,630	52	126,539	90
638	670	**Terra Chemicals International** (Sioux City, Iowa)	299,002	160,093	224	10,279	226	55,031	324
639	662	**H.B. Fuller** (St. Paul)[16]	296,860	146,059	248	9,718	240	64,546	272
640	667	**RKO General** (New York)[16]	296,691	327,017	32	30,167	42	234,540	18
641	613	**Triangle Industries** (Holmdel, N.J.)	296,295	135,510	268	4,040	376	52,029	337
642	704	**Beker Industries** (Greenwich, Conn.)	295,237	286,821	49	28,883	48	119,748	98
643	683	**Tracor** (Austin, Tex.)	295,147	176,698	182	13,250	172	93,288	168
644	669	**Jostens** (Minneapolis)[9]	295,077	178,245	180	21,655	85	101,004	149
645	567	**Murray Ohio Manufacturing** (Brentwood, Tenn.)	294,746	161,619	219	8,474	269	73,272	232
646	680	**Katy Industries** (Elgin, Ill.)	293,460	272,977	61	29,755**	45	150,962	59
647	618	**Ameron** (Monterey Park, Calif.)[16]	291,876	206,591	137	13,153	176	94,937	164
648	649	**Lancaster Colony** (Columbus, Ohio)[9]	289,641	171,510	197	7,271	302	72,693	235
649	663	**Pacific Lumber** (San Francisco)	289,526	262,694	68	42,076	17	186,302	31
650	556	**Allied Products** (Chicago)	289,410	161,325	221	(2,192)	457	51,395	345

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

[16] Figures are for fiscal year ending November 30, 1980.

[17] Figures are for fiscal year ending August 31, 1980.

[18] Name changed from Unarco Industries, September 30, 1980.

[19] FORTUNE estimate.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY CODE
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
4,222	131	17.1	11	19.8	112	4.17	3.25	0.66	20.24	85	71.81	84	21.53	64	48
4,449	118	9.6	65	23.7	48	4.89	4.71	(0.63)	—		75.61	74	20.42	74	45
3,310	218	—		—		(0.89)	2.72	0.41	—		(3.06)	359	19.95	78	29
5,700	63	7.7	111	17.0	170	5.03	5.10	1.27	14.76	163	(4.79)	369	—		34
5,348	73	3.1	313	8.7	362	3.51	4.55	2.07	5.42	268	(10.18)	394	5.43	263	30
6,358	50	11.3	42	19.7	113	3.06	2.81	0.62	17.31	123	58.07	112	21.83	63	45
2,300	334	1.1	408	10.2	337	2.73	3.15	0.47	19.24	99	38.92	157	—		21
1,326	447	5.9	175	33.1	16	2.65	1.08	0.16**	32.41	28	(26.59)	439	—		29
3,885	162	4.0	271	21.2	74	6.72	2.60	0.52	29.16	38	138.52	16	15.16	124	30
1,400	439	—		—		N.A.	N.A.	N.A.	—		—		—		20
6,724	37	7.7	107	17.7	155	0.77	0.49	0.13**	19.47	96	206.86	5	33.87	10	36
6,650	41	8.7	87	20.1	103	2.60	2.00	0.49	18.16	114	(14.64)	408	3.40	285	43
7,200	25	5.1	217	13.9	250	6.81	7.71	1.48	16.49	136	10.77	289	10.16	198	22
5,170	81	7.1	132	25.8	36	6.82	5.68	(6.16)	—		74.29	76	20.53	72	36
5,939	57	10.5	47	19.8	109	3.81	2.93	(0.71)	—		129.33	19	—		44
3,700	175	—		—		(1.20)	2.07	0.91	—		(26.20)	437	5.02	268	34
3,906	154	1.7	385	4.8	408	1.29	3.14	1.71	(2.78)	318	(23.30)	427	(2.85)	342	34
8,800	12	3.0	320	146.3	450	0.84	0.24	2.41	(10.00)	332	6.19	309	(19.26)	376	27
2,100	361	8.1	99	13.9	249	3.65	3.88	1.40	10.06	228	55.71	116	2.16	300	32
4,500	112	10.3	50	20.4	94	1.90	1.67	1.28	4.03	282	10.76	290	4.27	275	42
296	495	16.8	14	68.2	2	12.72	7.10	0.45	39.68	12	87.99	53	34.49	9	29
3,050	245	6.6	144	20.2	99	3.53	3.13	1.21	11.30	210	65.46	92	16.17	108	49
5,050	85	2.3	361	7.6	376	3.13	1.13	2.07	4.22	280	8.28	299	2.83	293	22
N.A.		—		—		N.A.	(2.65)	0.14	—		(30.07)	445	(8.98)	365	33
4,700	107	7.7	106	14.8	226	5.01	5.06	1.12	16.16	142	32.72	185	11.88	174	36
5,269	78	0.1	448	0.5	446	0.05	3.66**	(27.96)	—		(22.10)	424	15.22	122	44
665	485	2.5	348	42.6	7	1.70**	(6.43)	0.24**	21.63	76	37.04	162	—		33
730	481	—		—		0.00	0.69	N.A.	—		93.70	46	—		20
6,300	51	5.4	202	14.3	237	4.34	4.47	0.62	21.48	78	64.46	95	27.71	24	38
94,887†	96	5.0	220	20.9	81	2.83	1.54	0.64	16.03	145	127.14	20	23.42	53	46
4,025	143	—		—		(2.95)	3.03	0.58	—		(48.59)	461	8.67	221	37
2,358	329	33.6	2	35.2	13	5.96	3.61	0.04	64.94	2	94.91	44	27.55	25	10
7,344	23	7.5	115	15.7	203	2.38	2.07	N.A.	—		17.33	256	—		27
5,300	77	2.9	327	6.1	396	0.55	1.50	0.33	5.24	269	(8.05)	383	7.28	238	40
4,800	102	4.2	260	14.8	227	4.44	4.91	(6.29)	—		(8.67)	386	(3.20)	345	34
4,427	119	4.7	234	12.0	298	2.19	2.54	0.92	9.06	242	9.68	292	(1.79)	339	34
4,386	121	9.2	74	21.8	62	2.70	2.16	0.35**	22.67	66	98.74	38	14.14	138	32
991	471	3.4	301	18.7	133	1.70	0.29	N.A.	—		98.13	41	—		28
3,400	208	3.3	306	15.1	221	2.16	1.65	0.60	13.67	182	10.88	286	3.57	283	28
9,700	7	10.2	54	12.9	278	N.A.	N.A.	N.A.	—		—		—		48
2,700	282	1.4	399	7.8	374	1.85	1.52	0.23	23.18	60	49.58	130	3.05	288	33
1,175	457	9.8	62	24.1	46	2.49	3.16	N.A.	—		62.71	97	—		28
7,500	21	4.5	246	14.2	241	2.62	2.29	(0.03)	—		80.85	65	23.58	50	36
5,603	64	7.3	121	21.4	70	2.16	1.88	0.49	15.99	146	32.62	189	14.08	140	46
2,950	259	2.9	330	11.6	306	2.73	3.43	0.79	13.20	187	(13.92)	407	11.34	180	45
5,583	66	10.1	55	19.7	114	5.44**	3.27**	(0.11)	—		45.17	143	4.72	270	45
3,600	189	4.5	243	13.9	255	5.03	3.72	1.90	10.23	226	58.75	109	9.62	206	32
5,200	80	2.5	347	10.0	341	1.51	2.40	0.58	10.04	229	0.91	344	13.31	149	32
4,000	148	14.5	19	22.6	56	1.74	2.03	0.33	18.09	116	35.06	174	25.15	36	45
4,900	94	—		—		(0.82)	1.73**	(0.83)	—		(35.61)	448	2.01	302	45

THE SECOND 500 LARGEST INDUSTRIALS

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDER EQUITY	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RAN
651	650	**Standard Register** (Dayton, Ohio)	288,866	148,148	239	14,022	165	91,630	173
652	681	**Florida Steel** (Tampa, Fla.)[1]	286,641	154,962	233	18,532	115	87,623	181
653	630	**Worthington Industries** (Columbus, Ohio)[8,20]	286,417	223,883	109	17,617	127	85,091	192
654	615	**Greif Bros.** (Delaware, Ohio)[11]	285,594	174,656	191	21,345	90	140,882	72
655	886	**Imperial Sugar** (Sugar Land, Tex.)	284,963	56,680	484	7,687	289	28,394	455
656	616	**Tappan** (Mansfield, Ohio)	284,673	137,992	265	2,511	399	71,877	238
657	537	**Howell** (Houston)	284,083	175,079	189	13,707	167	75,542	223
658	610	**Athlone Industries** (Parsippany, N.J.)	282,742	182,417	170	8,635‡	266	55,086	323
659	846	**Sanders Associates** (Nashua, N.H.)[2]	281,057	234,985	97	18,528	116	130,503	86
660	692	**Salant** (New York)[16]	280,700	172,613	194	640	442	51,424	344
661	688	**Redman Industries** (Dallas)[5]	279,375	90,185	413	12,350	186	44,631	379
662	714	**Texas Industries** (Dallas)[9]	278,114	313,324	36	41,400	18	125,258	91
663	623	**Manitowoc** (Manitowoc, Wis.)[9]	277,508	183,414	168	25,188	62	133,174	83
664	674	**Compugraphic** (Wilmington, Mass.)[1]	277,355	213,564	129	8,732	265	96,478	161
665	634	**UNC Resources** (Falls Church, Va.)[5]	277,287	408,709	19	(34,211)	492	151,575	58
666	677	**Condec** (Old Greenwich, Conn.)[2]	275,044	250,046	81	2,641	398	75,571	222
667	607	**Raybestos-Manhattan** (Trumbull, Conn.)	274,435	199,840	141	(6,275)	473	93,552	166
668	756	**Eastmet** (Cockeysville, Md.)[9]	273,645	171,233	198	10,212	229	79,593	208
669	678	**Pierce (S.S.)** (Dundee, N.Y.)[2]	271,801	116,878	324	2,360	406	31,707	441
670	652	**Monogram Industries** (Santa Monica, Calif.)[9]	271,741	228,106	105	17,173	133	82,552	201
671	711	**Medtronic** (Minneapolis)[3]	270,366	256,760	74	38,674	21	172,522	40
672	657	**Western Gear** (Lynwood, Calif.)	270,304	155,311	232	14,524	158	72,653	236
673	723	**CHB Foods** (Terminal Island, Calif.)[9]	269,262	127,749	286	1,099	435	32,888	435
674	638	**Bassett Furniture Industries** (Bassett, Va.)[16]	268,598	187,903	161	22,182	82	161,947	44
675	738	**Stewart & Stevenson Services** (Houston)[10]	268,134	185,009	164	9,820	237	69,337	249
676	866	**Prime Computer** (Natick, Mass.)	267,637	233,094	100	31,222	40	98,898	155
677	717	**Bibb** (Macon, Ga.)[5]	266,978	156,560	230	1,780	419	70,276	245
678	673	**Oxford Industries** (Atlanta)[8]	266,761	132,675	280	5,832	336	71,401	241
679	682	**King-Seeley Thermos** (Prospect Heights, Ill.)[22]	265,100	182,400	171	17,000	134	139,700	75
680	745	**C.R. Bard** (Murray Hill, N.J.)	264,744	203,547	140	15,075	153	125,199	92
681	865	**Millipore** (Bedford, Mass.)	264,738	240,641	89	18,477	118	141,816	70
682	701	**U.S. Tobacco** (Greenwich, Conn.)	263,938	263,056	67	37,686	23	162,108	43
683	696	**Mark Controls** (Evanston, Ill.)	263,687	166,358	212	7,769	283	62,025	286
684	690	**P.H. Glatfelter** (Spring Grove, Pa.)	262,808	194,598	151	21,437	88	135,496	82
685	751	**Wean United** (Pittsburgh)	262,070	178,702	179	220	449	54,739	325
686	695	**Quanex** (Houston)[11]	261,530	185,465	163	17,493	128	83,680	194
687	647	**Philips Industries** (Dayton, Ohio)[5]	259,135	111,593	337	7,719	286	50,155	348
688	858	**Crystal Oil** (Shreveport, La.)	258,799	291,658	46	9,302	253	43,269	390
689	627	**Sealed Power** (Muskegon, Mich.)	257,882	197,364	146	11,773	197	123,967	95
690	700	**Chesapeake Corp. of Virginia** (West Point, Va.)	257,807	225,949	107	23,445	72	141,868	68
691	693	**CCI** (Tulsa)[3]	257,725	162,786	218	9,785	239	61,366	289
692	617	**Bliss & Laughlin Industries** (Oak Brook, Ill.)	256,559	174,894	190	18,510	117	107,185	131
693	691	**Dentsply International** (York, Pa.)	255,607	180,149	175	6,096	331	73,251	233
694	651	**Southdown** (Houston)	254,656	262,349	70	31,702‡	38	109,173	125
695	734	**Commerce Clearing House** (Chicago)	254,415	204,354	138	23,060	76	43,444	388
696	665	**Dinner Bell Foods** (Defiance, Ohio)[9]	254,156	36,718	497	3,904	380	21,982	470
697	709	**SFN Companies** (Glenview, Ill.)[3,23]	254,151	215,962	123	31,899	36	151,965	57
698	707	**Thomas & Betts** (Raritan, N.J.)	254,000	210,171	133	32,500	33	159,748	46
699	781	**Petrolite** (St. Louis)[11]	253,841	175,544	185	24,885	67	112,047	120
700	702	**Burndy** (Norwalk, Conn.)	253,703	195,281	149	24,211	70	119,355	99

N.A. Not available.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[20] Figures include Buckeye International (1979 rank: 841), acquired April 20, 1980.

		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
EMPLOYEES		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
4,295	127	4.9	228	15.3	216	6.46	6.28	1.82	13.51	183	30.18	195	12.98	156	27
2,500	310	6.5	151	21.1	76	6.29	4.93	1.31	16.99	128	156.93	10	20.57	71	33
4,868	98	6.2	167	20.7	88	1.60	1.47	0.06	38.87	14	12.39	281	—		33
4,000†	146	7.5	117	15.2	219	1.60[21]	1.43[21]	0.38[21]	15.46	155	34.39	178	—		26
604	488	2.7	336	27.1	28	36.56	2.36	N.A.	—		—		—		20
4,300	124	0.9	417	3.5	423	0.79	2.19	0.90	(1.30)	316	—				36
362	493	4.8	229	18.1	145	2.33	5.41	0.04**	50.15	5	(40.76)	457	—		29
3,550	194	3.1	316	15.7	206	3.04‡	1.14	0.09	42.19	10	27.95	205	24.39	40	33
6,500	44	6.6	147	14.2	242	2.65	2.36	0.17	31.61	30	77.50	68	17.42	97	36
9,180	10	0.2	444	1.2	440	0.20	0.60	0.70	(11.77)	336	40.82	153	8.24	230	23
3,400	207	4.4	250	27.7	27	1.32	1.45**	0.82	4.88	273	0.84	345	(3.34)	346	37
3,387	214	14.9	18	33.1	17	6.04	4.31	0.69	24.23	55	49.23	134	17.10	100	32
4,000	149	9.1	81	18.9	129	2.36	2.21	N.A.	—		27.03	208	—		45
4,756	105	3.1	311	9.1	357	1.72	3.58	0.24	21.77	72	(28.31)	442	16.55	104	45
5,140	82	—		—		(3.20)	4.15	0.36	—		(29.44)	444	8.43	224	10
4,600	109	1.0	415	3.5	422	0.70	0.10	0.93	(2.80)	319	35.68	173	7.22	240	34
4,733	106	—		—		(2.70)	2.24	0.66	—		38.42	159	10.38	194	32
2,273	340	3.7	285	12.8	279	2.27	1.84	N.A.	—		9.02	297	—		33
2,564	305	0.9	418	7.4	382	1.93	3.02	0.42	16.47	137	10.87	287	0.44	321	20
3,800	166	6.3	160	20.8	84	8.19	5.78	0.80	26.19	44	4.35	323	15.71	115	34
4,485	114	14.3	20	22.4	57	2.52	1.54	0.18	30.20	32	20.33	237	17.14	99	38
3,191	232	5.4	203	20.0	107	3.64	3.31	(0.24)	—		54.67	120	18.62	84	45
3,500	200	0.4	438	3.3	426	0.37	1.42	0.30	2.12	301	(7.28)	381	16.99	101	20
6,800	33	8.3	94	13.7	259	3.10	3.21	1.41	8.20	250	10.13	291	0.04	324	25
2,600	300	3.7	288	14.2	246	3.33	4.24	N.A.	—		20.09	238	—		45
4,011	145	11.7	38	31.6	20	1.07	0.64	N.A.	—		273.03	1	—		44
7,400†	22	0.7	431	2.5	431	1.14	3.30	(4.09)	—		(37.41)	451	0.90	315	22
9,827	5	2.2	363	8.2	369	1.89	2.24	1.37	3.27	288	19.86	240	17.82	91	23
4,200	132	6.4	156	12.2	293	N.A.	N.A.	N.A.	—		—		—		34
5,500	69	5.7	185	12.0	297	1.55	1.40	0.60	9.96	230	62.20	98	0.73	316	38
4,475	116	7.0	134	13.0	276	1.40	1.71	0.30	16.65	134	7.73	300	11.24	182	45
2,766	276	14.3	21	23.2	49	4.16	3.60	1.02	15.09	159	22.33	230	16.09	110	21
4,780	104	2.9	322	12.5	286	2.41	1.59	0.31	22.76	64	106.26	31	19.64	79	38
1,975	376	8.2	96	15.8	202	4.83	5.15	0.54	24.50	50	2.07	336	23.70	48	26
3,523	197	0.1	450	0.4	447	(0.13)	0.05	(1.33)	—		12.70	280	1.64	307	45
2,128†	359	6.7	142	20.9	83	2.84	2.15	0.43	20.78	83	53.79	122	25.71	31	33
3,389	213	3.0	319	15.4	212	1.28	1.05	0.80	4.81	274	35.75	172	(4.54)	352	34
650	486	3.6	293	21.5	68	0.48	0.52	(0.03)	—		112.45	27	31.45	15	29
4,637	108	4.6	241	9.5	349	2.45	4.35	1.11	8.24	249	(4.93)	371	13.30	150	40
2,663	293	9.1	79	16.5	182	3.83	3.09	0.80	16.95	130	13.66	274	15.18	123	26
3,304	219	3.8	280	15.9	200	1.57	2.25	(1.98)	—		28.57	201	10.22	197	45
3,219	229	7.2	123	17.3	163	2.58	2.78	0.92**	10.86	215	(4.52)	368	13.03	155	34
5,900	60	2.4	352	8.3	366	1.35	2.02	1.03	2.74	295	(5.63)	376	3.04	289	38
1,400†	440	12.4	35	29.0	25	4.53‡	4.36	0.75	19.70	93	43.40	146	20.60	70	32
4,832	99	9.1	83	53.1	6	2.56	2.17	0.49	17.98	118	18.27	251	8.29	229	27
1,721	414	1.5	391	17.8	154	2.44	2.51	0.47	17.90	119	(27.08)	440	—		20
2,667†	292	12.6	34	21.0	80	2.74	2.40	0.56	17.21	126	19.65	241	16.23	107	27
3,000	251	12.8	31	20.3	95	4.22	3.91	0.94	16.20	140	25.40	216	13.26	151	36
1,900	387	9.8	61	22.2	59	4.20	2.64	0.79	18.18	113	124.22	22	25.49	33	28
4,529	111	9.5	66	20.3	98	3.86	3.44	0.57	21.08	80	31.82	192	20.83	69	36

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[21] Class A and B combined.

[22] Wholly owned by Household Finance.

[23] Name changed from Scott Foresman, February 20, 1980.

THE SECOND 500 LARGEST INDUSTRIALS

RANK		COMPANY	SALES	ASSETS		NET INCOME		STOCKHOLDERS' EQUITY	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
701	748	**Wolverine World Wide** (Rockford, Mich.)	253,317	128,940	285	13,556	169	64,023	276
702	712	**Ludlow** (Needham Heights, Mass.)	251,234	120,224	309	4,470	367	61,195	292
703	743	**Omark Industries** (Portland, Ore.)[9]	251,213	228,041	106	25,025	63	114,956	110
704	713	**Ti-Caro** (Gastonia, N.C.)[1]	251,007	145,710	249	15,675	145	99,841	152
705	806	**Fansteel** (North Chicago, Ill.)	250,798	91,297	406	15,064	154	57,250	310
706	672	**Portec** (Oak Brook, Ill.)	250,762	119,074	313	8,923	260	65,578	266
707	763	**Western Pacific Industries** (New York)	249,278	172,163	196	28,889	47	87,681	180
708	746	**Lance** (Charlotte, N.C.)	249,254	127,676	287	19,499	105	100,380	151
709	684	**Faberge** (New York)	248,186	214,465	126	2,129	411	122,552	96
710	742	**Esterline** (Darien, Conn.)[11]	243,428	168,014	205	19,880	102	78,632	212
711	809	**First Mississippi** (Jackson, Miss.)[9]	242,690	236,579	93	21,154	93	113,672	115
712	761	**Guilford Mills** (Greensboro, N.C.)[9]	242,653	113,775	330	22,409	81	68,487	253
713	722	**Gleason Works** (Rochester, N.Y.)	242,640	184,914	165	16,327	141	105,128	134
714	720	**Lenox** (Lawrenceville, N.J.)	242,591	168,578	203	18,781	112	113,020	118
715	687	**Crompton & Knowles** (New York)	241,776	146,826	245	7,666	291	70,142	247
716	703	**Hesston** (Hesston, Kans.)	241,407	167,318	209	509	444	53,265	330
717	676	**Alabama By-Products** (Birmingham, Ala.)	240,266	272,015	63	6,945	311	119,333	100
718	733	**Goulds Pumps** (Seneca Falls, N.Y.)	238,953	148,099	240	18,354	120	87,758	179
719	726	**National Grape Co-Op. Assoc.** (Westfield, N.Y.)[17]	238,360	119,893	311	N.A.[6]		45,027	375
720	774	**Russell** (Alexander City, Ala.)	238,357	167,686	207	20,811	95	102,855	142
721	●	**Richmond Tank Car** (Houston)	237,673	165,937	214	20,221	99	64,682	271
722	753	**Huffy** (Miamisburg, Ohio)[9]	237,512	118,484	315	8,919	261	42,972	392
723	825	**Taft Broadcasting** (Cincinnati)[5]	235,946	456,749	16	31,715	37	220,329	20
724	864	**Filmways** (Los Angeles)[4]	235,330	241,992	87	1,617**	423	65,645	265
725	655	**Overhead Door** (Dallas)	234,975	139,090	260	4,476	366	77,937	213
726	871	**General American Oil Co. of Texas** (Dallas)[9]	234,464	462,027	13	57,961	8	378,337	3
727	710	**Donaldson** (Minneapolis)[2]	234,428	145,331	250	8,240	273	80,633	206
728	679	**Commercial Shearing** (Youngstown, Ohio)[11]	233,731	161,146	222	14,431	160	105,062	135
729	659	**Kaiser Cement** (Oakland, Calif.)	233,663	418,780	18	25,015	64	210,306	22
730	732	**Stanley Home Products** (Westfield, Mass.)	233,370	159,637	225	14,963	156	90,894	175
731	719	**Chelsea Industries** (Boston)[1]	232,224	106,109	357	2,386	405	42,602	395
732	775	**Alberto-Culver** (Melrose Park, Ill.)[1]	232,025	117,906	318	10,436	222	60,745	294
733	769	**Ocean Spray Cranberries** (Plymouth, Mass.)[17]	231,028	138,679	264	N.A.[6]		35,659	423
734	694	**Laclede Steel** (St. Louis)	230,577	146,922	244	(788)	452	59,916	296
735	816	**Herman Miller** (Zeeland, Mich.)[8]	230,295	141,585	253	12,108	192	59,644	297
736	729	**Leggett & Platt** (Carthage, Mo.)	229,194	111,747	336	8,395	270	59,142	301
737	731	**Grow Group** (New York)[9]	227,599	120,335	308	4,612	364	38,994	414
738	768	**Brown & Sharpe Mfg.** (North Kingstown, R.I.)	227,472	176,272	184	14,505	159	86,551	187
739	698	**Thomas Industries** (Louisville, Ky.)	227,148	121,471	301	10,743	211	74,507	226
740	728	**Barber-Greene** (Aurora, Ill.)[17]	226,540	166,141	213	4,669	363	65,331	267
741	873	**Advanced Micro Devices** (Sunnyvale, Calif.)[5]	225,593	164,756	215	23,277	75	87,513	183
742	931	**Computervision** (Bedford, Mass.)	224,207	167,479	208	23,321	74	108,480	129
743	716	**McQuay-Perfex** (Minneapolis)	222,970	127,158	289	9,876	236	61,277	291
744	739	**McNeil** (Akron, Ohio)	222,201	140,305	257	4,711	359	75,014	225
745	759	**John Blair** (New York)	220,620	133,958	277	11,642	199	66,014	263
746	849	**Pogo Producing** (Houston)	220,394	553,418	8	54,030	10	234,616	17
747	749	**Rochester & Pittsburgh Coal** (Indiana, Pa.)	219,118	189,980	158	14,069	164	74,384	228
748	893	**International Banknote** (New York)	219,016	166,445	211	1,687	420	41,054	403
749	644	**Sterndent** (Old Greenwich, Conn.)	218,012	96,639	389	1,646	421	36,544	421
750	708	**Dixie Yarns** (Chattanooga, Tenn.)	216,654	93,209	400	5,114	350	57,118	311

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
EMPLOYEES		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
6,900	30	5.4	205	21.2	75	3.43	2.27	0.60	19.05	104	61.94	101	10.41	193	31
3,300	222	1.8	382	7.3	383	1.23	1.67	0.71	5.65	265	(13.00)	404	0.48	320	26
4,479	115	10.0	58	21.8	63	7.14	5.94	1.32	18.39	109	53.13	124	20.36	75	34
5,550	67	6.2	162	15.7	205	5.75	5.34	1.29	16.12	143	25.17	218	19.26	81	22
2,440	321	6.0	172	26.3	33	10.46	6.84	0.53	34.75	22	—		—		34
2,581	304	3.6	294	13.6	265	2.35	1.72	0.84	10.84	216	4.24	324	12.77	156	37
5,110	83	11.6	40	32.9	18	11.68	10.64	(4.67)	—		4.94	318	—		38
4,953	90	7.8	102	19.4	117	2.34	1.95	0.69	12.99	190	6.43	306	11.20	184	20
3,000	252	0.9	420	1.7	436	0.38	1.27	0.41	(0.76)	313	98.72	39	8.93	217	43
3,900	156	8.2	95	25.3	41	2.51	1.66	(0.37)	—		84.03	60	23.01	58	45
927	476	8.7	85	18.6	135	2.46	0.55	0.06	44.97	9	124.70	21	47.38	2	28
2,083	369	9.2	75	32.7	19	5.67	3.94	N.A.	—		108.33	29	—		22
5,000	87	6.7	141	15.5	207	3.26	3.91	1.32	9.46	238	(24.31)	432	0.10	323	45
4,300	125	7.7	105	16.6	180	4.26	3.80	1.25	13.04	189	36.79	164	15.59	116	46
3,000	248	3.2	310	10.9	318	3.33	3.05	1.48	8.45	248	18.31	250	9.43	211	28
3,000	253	0.2	445	1.0	443	(0.19)	1.41**	0.61	—		65.95	91	9.75	201	45
3,339	217	2.9	328	5.8	399	3.95	8.48	2.67	3.99	283	9.08	296	—		10
3,700	176	7.7	110	20.9	82	2.23	2.38	0.36	20.01	89	90.29	50	—		45
1,459	435	—		—		N.A.	N.A.	N.A.	—		—		—		49
7,265	24	8.7	84	20.2	100	3.55	2.73	0.18**	34.74	23	109.97	28	31.63	13	23
1,884	393	8.5	90	31.3	21	3.23	1.25	N.A.	—		72.00	82	—		37
2,457	318	3.8	283	20.8	86	2.80	1.90	0.31	24.62	49	44.22	144	17.61	93	47
3,400†	210	13.4	25	14.4	232	3.58	3.06	0.95	14.19	172	(19.48)	420	11.27	181	48
2,500	311	0.7	430	2.5	432	0.24**	1.56	(0.54)	—		(40.16)	456	2.84	292	27
3,975†	153	1.9	376	5.7	400	0.82	2.60	0.70	1.59	303	(6.93)	379	6.11	250	26
1,625	425	24.7	4	15.3	215	3.62	2.18	1.16	12.05	198	29.63	197	21.00	66	10
3,242	225	3.5	297	10.2	336	1.60	2.78	0.62	9.94	231	7.43	303	15.01	127	45
2,951	258	6.2	166	13.7	258	1.59	2.00	0.37	15.70	150	7.03	304	23.57	51	45
1,767	407	10.7	46	11.9	301	3.45	5.54	0.83	15.31	157	16.69	259	8.04	232	32
9,950	4	6.4	157	16.5	185	5.55	5.14	2.22**	9.60	237	60.67	103	11.53	178	43
2,800	270	1.0	413	5.6	402	1.05	2.95	0.91	1.44	305	(23.76)	430	5.99	252	30
3,640	184	4.5	245	17.2	165	2.61	1.39	1.74	4.14	281	96.59	43	(6.30)	356	43
1,192	455	—		—		N.A.	N.A.	N.A.	—		—		—		20
3,000	250	—		—		(0.44)	(0.03)	(2.98)	—		(5.26)	373	14.43	132	33
3,219	230	5.3	212	20.3	97	3.53	2.76	0.69	17.73	120	99.19	36	23.59	49	25
5,000	89	3.7	287	14.2	243	2.06	1.70	0.44	16.69	133	14.71	268	11.66	176	25
2,250	341	2.0	371	11.8	303	1.32	1.49	0.44	11.61	204	90.25	51	16.95	102	28
4,373	122	6.4	159	16.8	176	4.81	4.55	(2.01)‡	—		3.12	328	15.10	125	45
3,260	224	4.7	232	14.4	231	1.78	1.85	0.49	13.77	178	22.42	228	4.69	271	36
3,399	212	2.1	370	7.1	386	2.05	3.30	0.26**	22.94	63	(10.37)	396	18.52	86	45
7,976	16	10.3	51	26.6	32	2.94	1.48	N.A.	—		90.35	49	—		36
3,530	196	10.4	48	21.5	69	1.80	1.05	N.A.	—		219.57	4	—		44
3,900	159	4.4	249	16.1	193	2.43	1.67	0.69	13.42	184	60.35	104	10.88	189	45
3,635	185	2.1	367	6.3	394	1.96	1.57	1.86	0.53	309	4.46	321	5.47	260	45
2,100	362	5.3	210	17.6	156	3.13	3.27	1.00	12.09	195	(6.83)	378	11.63	177	27
164	499	24.5	5	23.0	52	2.13	1.66	N.A.	—		61.66	102	25.38	34	10
2,675	291	6.4	155	18.9	128	9.85	6.62	1.61**	19.86	91	—		—		10
4,500	113	0.8	424	4.1	417	0.10	0.55**	(2.90)	—		(16.67)	413	(0.95)	333	27
1,350	445	0.8	425	4.5	413	0.73	2.48	N.A.	—		0.58	347	11.98	171	34
4,300	123	2.4	354	9.0	359	5.09	7.94	1.70	11.59	205	—		—		22

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDE EQUITY ($000)	STOCKHOLDE EQUITY RAN
751	570	**Champion Home Builders** (Dryden, Mich.)[4]	215,409	70,913	463	(6,824)	475	29,794	45
752	736	**Kimball International** (Jasper, Ind.)[9]	215,138	124,691	294	15,241	148	87,294	18
753	725	**Standard Products** (Cleveland)[9]	213,623	104,846	360	(2,760)	460	38,154	41
754	797	**American Sterilizer** (Erie, Pa.)	213,249	129,943	283	8,946	258	84,788	19
755	811	**Shaw Industries** (Dalton, Ga.)[9]	213,069	117,230	321	5,609	339	41,039	404
756	799	**Betz Laboratories** (Trevose, Pa.)	212,607	139,018	261	23,379	73	109,134	12
757	810	**Mohawk Data Sciences** (Parsippany, N.J.)[3]	212,228	204,185	139	15,307	146	78,693	211
758	771	**Pentair** (St. Paul)	210,852	113,885	329	12,303	189	57,386	309
759	817	**Pope & Talbot** (Portland, Ore.)	210,315	189,547	159	11,093	204	112,283	119
760	705	**Michigan General** (Dallas)	210,205	106,129	356	(13,445)	483	11,479	486
761	750	**Keene** (New York)	210,112	170,933	199	12,006	194	70,729	242
762	773	**Blue Chip Stamps** (Los Angeles)	209,428	298,367	43	20,389	98	145,542	64
763	788	**Twin Disc** (Racine, Wis.)[9]	208,975	102,530	366	10,442	221	77,271	214
764	812	**Carter-Wallace** (New York)[5]	208,206	208,301	135	8,065	276	135,770	81
765	689	**Triangle Pacific** (Dallas)	207,692	110,687	341	2,903	394	62,609	280
766	760	**RTE** (Waukesha, Wis.)	207,474	108,195	350	4,367	370	45,885	368
767	793	**Bobbie Brooks** (Cleveland)[3]	206,907	83,597	434	(5,296)	469	32,043	439
768	789	**Affiliated Publications** (Boston)	206,464	104,967	359	12,852	178	72,312	237
769	764	**California Portland Cement** (Los Angeles)[3]	206,098	272,050	62	36,164**	26	178,859	37
770	801	**Noxell** (Cockeysville, Md.)	204,160	94,931	394	14,699	157	74,139	229
771	●	**Anthony Industries** (City of Commerce, Calif.)	204,019	121,359	302	3,157	391	30,776	444
772	752	**Joslyn Mfg. & Supply** (Chicago)	203,790	134,186	275	12,620	182	88,722	177
773	828	**Sun Electric** (Crystal Lake, Ill.)[11]	203,336	190,189	157	11,603	200	95,488	162
774	762	**Tampax** (Lake Success, N.Y.)	202,928	183,765	166	36,320	25	156,531	54
775	755	**Hon Industries** (Muscatine, Iowa)	201,846	140,309	256	15,186	150	75,137	224
776	796	**Brunswick Pulp & Paper** (Brunswick, Ga.)	201,835	310,443	38	19,180	108	158,849	50
777	740	**American Biltrite** (Cambridge, Mass.)	201,732	108,258	349	(12,562)	481	41,819	397
778	880	**Elcor** (Midland, Tex.)[9]	201,181	120,806	304	7,692**	288	42,837	393
779	735	**Modine Manufacturing** (Racine, Wis.)[5]	200,970	125,438	292	10,532	220	75,766	220
780	877	**Holly Sugar** (Colorado Springs, Colo.)[5]	200,917	154,712	234	5,339	345	77,083	216
781	●	**ROLM** (Santa Clara, Calif.)[9]	200,729	117,585	320	17,340	129	50,163	347
782	843	**Loctite** (Newington, Conn.)[9]	199,297	179,783	176	25,893	57	114,518	112
783	●	**LeaRonal** (Freeport, N.Y.)[4]	198,849	35,856	498	6,062	332	23,357	466
784	854	**Criton** (Bellevue, Wash.)[10,24]	198,768	87,780	421	11,945	196	34,784	426
785	785	**Justin Industries** (Fort Worth)	197,862	157,926	229	7,879	278	64,283	275
786	815	**Duplex Products** (Sycamore, Ill.)[11]	197,799	84,361	431	10,720	213	51,536	340
787	807	**Four-Phase Systems** (Cupertino, Calif.)	197,187	179,567	177	5,452	342	104,182	140
788	819	**Storer Broadcasting** (Miami Beach)	197,068	505,821	12	24,827	68	254,997	13
789	721	**Halstead Industries** (Zelienople, Pa.)	196,736	100,150	370	663	441	52,850	333
790	818	**Cubic** (San Diego, Calif.)[1]	196,386	110,449	343	8,151	274	53,011	332
791	787	**Union** (Verona, Pa.)[9]	195,879	134,719	272	4,803	354	63,617	279
792	765	**Valmac Industries** (Memphis)[9]	195,457	122,349	299	(7,988)	478	23,741	465
793	741	**Leslie Fay** (New York)[3]	195,401	79,526	448	3,031	393	42,820	394
794	959	**Robbins & Myers** (Dayton, Ohio)[17]	194,152	120,512	305	10,732	212	57,902	307
795	909	**Macmillan Ring-Free Oil** (New York)	193,375	48,679	494	1,336	430	10,251	488
796	847	**Technicolor** (Los Angeles)[9]	193,099	124,527	295	17,723	126	66,631	262
797	784	**Wynn's International** (Fullerton, Calif.)	193,052	129,350	284	7,502	296	66,933	261
798	804	**Bic Pen** (Milford, Conn.)	192,020	142,388	252	12,340	187	79,826	207
799	964	**Scientific-Atlanta** (Atlanta)[9]	191,997	138,867	262	12,721	181	86,341	190
800	833	**Continental Copper & Steel Industries** (Cranford, N.J.)[9]	191,805	101,391	369	4,502	365	41,624	400

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[24] Name changed from Heath Tecna, May 29, 1980.

		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
EMPLOYEES		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
3,100	240	—		—		(0.19)	0.21**	0.11	—		19.94	239	(7.92)	361	37
4,940†	92	7.1	130	17.5	160	2.91	3.09	N.A.	—		18.44	249	—		47
3,900	157	—		—		(2.26)	4.37	1.80	—		(27.42)	441	7.52	236	40
3,531	195	4.2	259	10.6	330	1.01	0.93	0.56	6.08	264	(11.29)	400	(0.44)	327	38
2,419	323	2.6	340	13.7	260	1.10	0.97	N.A.	—		16.44	260	—		22
2,100	364	11.0	44	21.4	72	3.00	2.56	0.41	22.02	69	22.39	229	10.36	196	28
4,200	133	7.2	125	19.5	116	1.67	1.10	1.52	0.95	308	42.32	148	(0.79)	331	44
1,809	398	5.8	181	21.4	71	4.17	4.19	0.19	36.19	18	13.66	273	—		26
2,600	299	5.3	211	9.9	343	1.80	4.04	0.31	19.23	100	46.00	140	16.13	109	26
3,700	174	—		—		(3.47)	0.41	0.37**	—		70.85	86	(4.03)	351	34
2,222†	346	5.7	183	17.0	172	4.42	3.52	0.70	20.24	86	17.64	255	11.06	187	45
2,880†	265	9.7	63	14.0	248	3.94	3.00	1.46	10.44	222	(12.54)	402	6.41	246	20
3,190	233	5.0	222	13.5	266	2.89	3.19	1.00	11.20	212	(5.54)	375	10.62	191	45
3,300	220	3.9	276	5.9	398	1.05	0.85	2.42**	(8.01)	329	49.55	131	0.62	318	43
3,697	179	1.4	396	4.6	411	0.74	2.76	0.32	8.74	244	(22.65)	425	7.53	235	26
2,529†	308	2.1	368	9.5	348	0.76	0.94	0.49	4.49	279	2.71	332	(3.52)	349	36
2,700	284	—		—		(1.16)	2.00**	0.67**	—		(13.33)	405	(14.26)	371	23
2,200	350	6.2	163	17.8	153	2.49	2.46	N.A.	—		42.03	149	—		27
1,600	426	17.5	9	20.2	101	8.57**	6.95	2.24	14.36	168	(3.26)	360	8.40	227	32
1,100	466	7.2	126	19.8	108	3.01	2.67	0.81	14.03	174	14.75	267	3.39	286	43
3,400	211	1.5	390	10.3	333	1.20	2.37	0.22	18.49	107	1.43	338	12.95	157	47
2,000	371	6.2	165	14.2	240	5.33	3.55	1.47	13.75	179	99.89	35	14.35	134	36
3,644	183	5.7	184	12.2	294	2.02	2.32	0.43	16.73	131	(0.13)	352	17.83	89	38
2,600	298	17.9	8	23.2	50	3.22	3.70	1.65	6.91	256	(0.63)	353	(0.74)	330	26
3,600	191	7.5	114	20.2	102	1.48	1.69	0.17	24.16	56	27.29	206	25.62	32	25
1,440	437	9.5	69	12.1	296	N.A.	N.A.	N.A.	—		—		—		26
2,889	264	—		—		(4.78)	1.90**	0.70	—		(20.27)	421	1.37	311	30
1,900	388	3.8	278	18.0	150	1.95**	2.41**	(5.90)‡	—		39.82	155	24.39	39	29
3,130	238	5.2	213	13.9	252	3.64	5.00	1.36	10.35	223	6.58	305	11.02	188	40
1,245	453	2.7	338	6.9	390	3.37	(3.61)	1.59	7.80	253	11.92	284	17.75	92	20
3,759	170	8.6	88	34.6	14	2.17	1.50	NA.	—		120.62	25	—		36
2,589	303	13.0	30	22.6	55	2.65	2.40	0.21	28.86	39	(3.72)	363	—		28
251	497	3.0	317	26.0	34	2.48	1.75	0.43	19.15	102	180.76	7	27.81	23	28
2,640	295	6.0	171	34.3	15	5.23	2.84	(2.96)	—		94.42	45	23.31	54	41
4,035	140	4.0	270	12.3	292	2.09	2.83	0.22	25.25	47	29.00	198	—		32
1,994	373	5.4	200	20.8	85	2.89	3.06	0.30	25.42	46	7.63	301	23.28	55	27
3,748	171	2.8	333	5.2	405	1.06	3.29	N.A.	—		(43.85)	459	—		44
3,150	237	12.6	32	9.7	345	1.98	2.93	0.35	18.92	105	23.71	222	17.83	90	48
1,816	397	0.3	442	1.3	439	6.07	58.02	4.56	2.90	293	—		—		33
3,400	209	4.2	263	15.4	213	2.75	2.71	0.64	15.70	151	17.00	257	10.16	199	36
3,800	167	2.5	350	7.5	377	0.90	0.96	0.66	3.15	290	(24.17)	431	5.12	267	45
3,646	182	—		—		(3.55)	1.02	0.28	—		18.98	246	24.11	44	20
2,200	349	1.6	389	7.1	388	0.84	1.66	0.85	(0.12)	312	41.19	152	2.35	297	23
3,776	169	5.5	196	18.5	137	4.58	3.54	1.03	16.09	144	73.08	80	20.28	76	36
286	496	0.7	429	13.0	275	0.22	1.39	0.05**	15.97	147	—		—		29
3,200	231	9.2	76	26.6	31	5.93	2.70	(2.57)	—		55.49	117	9.48	209	48
1,895	391	3.9	275	11.2	313	2.06	2.29	0.64	12.40	194	(10.93)	398	1.92	303	40
2,300	336	6.4	153	15.5	209	1.91	1.36	N.A.	—		56.07	115	—		44
4,000	151	6.6	145	14.7	228	1.31	0.88	0.06	36.12	20	106.96	30	38.54	7	36
2,200	348	2.3	355	10.8	321	1.26	0.60	0.46	10.60	219	20.80	235	3.85	279	33

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS EQUITY ($000)	STOCKHOLDERS EQUITY RANK
801	770	**Smithfield Foods** (Smithfield, Va.)[3]	191,725[19]	37,225	495	4,177[19]	373	14,168	484
802	862	**Kollmorgen** (Stamford, Conn.)	191,249	127,506	288	10,242	228	53,576	328
803	794	**Bohemia** (Eugene, Ore.)[3]	190,756	192,424	153	20,893	94	101,177	148
804	777	**Reliance Universal** (Louisville, Ky.)[16]	189,021	82,393	440	4,724	357	41,145	402
805	832	**Brush Wellman** (Cleveland)	188,786	175,422	186	18,185	121	113,834	114
806	727	**Bulova Watch** (New York)	188,545	159,337	227	(8,704)	479	43,648	386
807	800	**Park-Ohio Industries** (Cleveland)	188,443	158,999	228	12,182	191	81,280	205
808	798	**NIBCO** (Elkhart, Ind.)	188,260	110,578	342	10,695	215	55,946	318
809	779	**CTS** (Elkhart, Ind.)	187,977	126,635	290	10,311	225	106,705	133
810	757	**Instrument Systems** (Jericho, N.Y.)[1]	187,448	120,420	306	(15,093)	484	17,331	477
811	790	**Applied Power** (Brookfield, Wis.)[17]	187,330	97,897	385	1,357	428	39,781	410
812	754	**Norlin Industries** (White Plains, N.Y.)	187,021	147,768	242	(17,101)	487	47,668	360
813	829	**American Business Products** (Atlanta)	186,487	68,832	466	8,073	275	46,582	364
814	836	**Vermont American** (Lousiville, Ky.)	185,967	131,457	282	9,221	255	69,166	250
815	814	**Arctic Enterprises** (Thief River Falls, Minn.)[5]	185,526	110,082	345	(11,559)	480	22,986	468
816	831	**Fischer & Porter** (Horsham, Pa.)	185,212	139,461	259	1,147	434	55,625	320
817	861	**Florida Rock Industries** (Jacksonville, Fla.)[1]	184,919	118,053	317	10,960	209	62,392	282
818	922	**American Ship Building** (Tampa, Fla.)[1]	184,757	114,196	328	9.370	249	49,478	352
819	802	**Keller Industries** (Miami)[2]	184,606	99,652	373	1,036	436	56,589	313
820	852	**DHJ Industries** (New York)[8]	184,509	98,869	376	9,130	257	29,497	452
821	671	**Hayes-Albion** (Jackson, Mich.)[2]	184,445	113,313	332	(2,927)	461	62,056	285
822	830	**F.&M. Schaefer** (New York)	183,499*	82,262	441	3,821**	382	(16,200)	499
823	776	**KDI** (Cincinnati)	183,017	89,463	415	4,983**	352	19,271	472
824	892	**Tultex** (Martinsville, Va.)[18]	181,740	113,669	331	7,516	295	43,601	387
825	●	**Metro-Goldwyn-Mayer Film** (Culver City, Calif)[17]	181,177	280,822	53	16,457	139	122,212	97
826	737	**Mohawk Rubber** (Hudson, Ohio)	180,704	91,969	403	4,708	360	39,367	412
827	837	**Dataproducts** (Woodland Hills, Calif.)[5]	180,319	176,407	183	7,367	300	92,830	171
828	868	**Commodore** (Syracuse, Ind.)[9]	179,954	52,123	491	(2,601)	459	2,006	495
829	857	**Ranco** (Columbus, Ohio)[1]	179,418	134,729	271	3,862	381	55,569	321
830	820	**Tasty Baking** (Philadelphia)	178,887	66,807	470	1,490	425	29,562	451
831	914	**Russ Togs** (New York)[10]	177,514	98,161	383	8,518	268	59,443	299
832	●	**Pauley Petroleum** (Los Angeles)[17]	177,393	98,671	378	1,836	418	25,707	460
833	●	**Inspiration Consolidated Copper** (Phoenix)	177,012	199,207	144	(17,629)	488	83,425	196
834	780	**Clow** (Oak Brook, Ill.)	176,832	111,909	335	(4,969)	468	45,963	367
835	970	**Acton** (Acton, Mass.)	176,625	161,569	220	4,798	355	25,976	459
836	791	**Cagle's** (Atlanta)[5]	175,705	48,978	493	(1,597)	454	15,506	483
837	844	**Phoenix Steel** (Claymont, Del.)	175,638	140,879	254	1,265**	432	2,309	494
838	930	**W.A. Krueger** (Scottsdale, Ariz.)	175,396	94,965	392	7,322	301	37,453	420
839	952	**Thermo Electron** (Waltham, Mass.)[9]	174,630	123,609	296	7,242	303	71.414	240
840	927	**Early California Industries** (Los Angeles)[5]	173,609	123,343	297	3,970	379	25,281	462
841	835	**Cooper Laboratories** (Palo Alto, Calif.)[11]	172,847	211,843	131	59,280**	7	93,239	170
842	782	**Oglebay Norton** (Cleveland)	172,526	230,049	103	17,283	130	124,712	93
843	766	**Van Dorn** (Cleveland)	172,410	103,184	363	6,119	329	56,039	317
844	863	**Kirsch** (Sturgis, Mich.)[9]	171,554	117,228	322	7,104	305	64,442	274
845	850	**Lane** (Altavista, Va.)	171,078	109,512	346	13,199	173	95,282	163
846	870	**William Carter** (Needham Heights, Mass.)	171,071	102,505	367	6,043	333	49,011	354
847	758	**Salem Carpet Mills** (Winston-Salem, N.C.)	170,819	71,461	461	339	447	22,368	469
848	●	**GCA** (Bedford, Mass.)	170,083	116,922	323	13,099	177	62,073	284
849	869	**United Industrial** (New York)	169,288	98,811	377	7,825	279	46,093	366
850	855	**Rexham** (New York)	169,239	122,796	298	6,677‡	322	65,328	268

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

*Does not include excise taxes; see the explanation of "sales" on page 218.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

EMPLOYEES NUMBER	EMPLOYEES RANK	NET INCOME AS PERCENT OF SALES %	SALES RANK	STOCKHOLDERS' EQUITY %	EQUITY RANK	EARNINGS PER SHARE '80($)	'79($)	'70($)	GROWTH RATE 1970-80 %	GROWTH RANK	TOTAL RETURN TO INVESTORS 1980 %	1980 RANK	1970-80 AVERAGE %	AVERAGE RANK	INDUSTRY CODE
2,173	353	2.2	364	29.5	24	1.90[19]	1.48	1.61**	1.67	302	(39.00)	452	—		20
3,700	177	5.4	204	19.1	122	1.23	1.21	0.21	19.34	98	83.67	61	26.57	28	36
1,800	401	11.0	45	20.6	90	5.87	5.01	1.25	16.73	132	32.01	191	14.87	130	26
1,733	411	2.5	349	11.5	308	2.42	3.02	1.31	6.33	261	12.80	279	11.48	179	28
2,336	331	9.6	64	16.0	199	3.17	3.03	0.51	20.05	88	36.65	166	22.01	62	33
3,900	158	—		—		(2.22)	1.95**	1.92	—		—		—		38
2,700	285	6.5	152	15.0	222	2.25	2.66	0.58	14.52	164	82.65	63	—		34
2,903	261	5.7	186	19.1	123	5.82	4.03	1.25**	16.63	135	—		—		34
7,053	27	5.5	198	9.7	346	2.33	2.40	0.88	10.23	225	26.66	209	9.72	204	36
3,000	249	—		—		(0.44)	0.12**	0.07	—		(25.00)	433	(18.77)	375	34
2,100	363	0.7	426	3.4	425	0.39	2.49	1.30	(11.34)	335	—		—		45
4,286	128	—		—		N.A.	N.A.	N.A.	—		—		—		47
3,000	255	4.3	251	17.3	162	2.15	1.92	N.A.	—		32.96	184	13.46	147	27
3,482	202	5.0	223	13.3	271	1.79	2.03	0.25	21.76	73	(2.15)	357	24.31	41	34
1,300	448	—		—		(3.67)	0.61	1.19	—		(51.35)	462	(17.73)	374	37
4,029	141	0.6	434	2.1	434	0.41	(0.29)	(0.37)**	—		74.17	77	9.65	205	38
2,100	365	5.9	177	17.6	158	2.43	2.23	N.A.	—		(19.42)	419	—		32
3,358	215	5.1	219	18.9	126	1.47	0.33	0.47	12.08	196	32.64	187	9.74	202	37
4,100	137	0.6	437	1.8	435	0.30	1.46	0.70	(8.12)	330	(0.84)	354	0.50	319	34
1,900	386	4.9	224	31.0	22	N.A.	N.A.	N.A.	—		—		—		22
2,896	263	—		—		(0.77)	0.06	1.15	—		(14.87)	411	0.15	322	40
1,342	446	2.1	369	23.6	449	0.81**	(2.51)	2.33	(10.03)	333	73.23	79	(14.51)	372	49
3,300	223	2.7	334	25.9	35	0.53**	0.53	(5.29)‡	—		5.63	314	—		36
6,125	54	4.1	266	17.2	164	1.70	1.35	N.A.	—		85.63	56	—		23
1,925	381	9.1	80	13.5	268	0.51	N.A.	N.A.	—		—		—		48
1,549	428	2.6	342	12.0	299	3.94	1.62	1.26	12.08	197	84.19	59	8.75	220	30
4,450	117	4.1	268	7.9	371	1.01	1.95	0.28	13.69	181	78.14	67	19.35	80	44
2,400	324	—		—		(1.16)	0.44**	(0.41)	—		(4.80)	370	(10.84)	367	37
5,300	76	2.2	365	6.9	389	1.11	2.57	0.09	28.56	41	(10.08)	392	7.17	241	38
2,164	356	0.8	421	5.0	406	0.54	(0.81)	0.90	(4.98)	324	(9.11)	387	3.84	280	20
3,500†	198	4.8	230	14.3	235	2.13	1.54	0.16‡	29.55	37	46.98	137	2.29	298	23
200	498	1.0	412	7.1	387	0.65	1.33**	2.16	(11.32)	334	6.41	307	15.00	128	29
2,180	352	—		—		(5.38)	2.34	7.41	—		—		—		10
2,380	328	—		—		(1.73)	0.47	0.16	—		5.24	315	(2.90)	343	33
3,155	235	2.7	335	18.5	140	1.24	1.12	2.29‡	(5.95)	327	59.33	106	13.51	146	20
2,750	278	—		—		(0.69)	2.10	0.70	—		(5.38)	374	(3.02)	344	20
1,800	400	0.7	427	54.8	5	(0.03)**	0.24**	(2.52)	—		5.63	313	(2.44)	341	33
2,850	267	4.2	261	19.5	115	2.02	1.90	0.07	39.97	11	33.93	181	12.47	164	27
2,600	301	4.1	264	10.1	338	1.88	1.60	0.47	14.87	161	19.42	243	1.69	306	45
1,655	423	2.3	360	15.7	204	1.32	1.92	0.08**	32.36	29	(25.42)	434	6.34	247	20
3,400	206	34.3	1	63.6	3	11.27**	2.05	0.66	32.81	26	58.87	108	9.16	213	42
2,961	257	10.0	57	13.9	254	4.92	4.83	1.32	14.06	173	(9.90)	391	15.88	113	10
1,959	377	3.5	295	10.9	319	2.01	3.02	0.74	10.51	220	28.86	199	11.23	183	34
3,477	203	4.1	265	11.0	316	2.76	3.55	1.61	5.54	267	98.94	37	5.65	257	25
5,300	75	7.7	108	13.9	256	5.65	4.62	1.70	12.76	191	14.85	266	1.34	312	25
6,500	45	3.5	296	12.3	289	10.80	8.29	1.52	21.66	75	—		—		23
2,553	306	0.2	446	1.5	438	0.05	0.06	N.A.	—		15.34	264	—		22
2,467	317	7.7	109	21.1	78	2.71	1.25	0.12‡	36.58	17	186.65	6	31.48	14	45
3,801	165	4.6	240	17.0	171	2.85	2.65	0.32	24.44	52	85.12	57	28.01	22	38
2,820	269	3.9	273	10.2	335	1.55‡	1.91	N.A.	—		(11.16)	399	—		26

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS EQUITY ($000)	STOCKHOLDERS EQUITY RANK
851	839	**Midland Glass** (Cliffwood, N.J.)[1]	169,131	107,123	353	2,461	402	40,878	405
852	884	**Farmer Bros.** (Torrance, Calif.)[9]	168,860	68,645	467	8,275	271	48,315	357
853	834	**GF Business Equipment** (Youngstown, Ohio)	168,699	79,875	446	2,054	413	42,110	396
854	●	**GenRad** (Concord, Mass.)	167,698	148,717	238	11,053	207	74,431	227
855	910	**Harper & Row** (New York)[3]	167,115	146,655	246	4,416	369	58,931	302
856	●	**Mary Kay Cosmetics** (Dallas)	166,938	74,431	455	15,135	151	38,633	417
857	878	**Block Drug** (Jersey City, N.J.)[5]	166,698	134,463	273	16,490	137	98,825	157
858	872	**Valley Industries** (St. Louis)[16]	166,627	110,880	340	4,723	358	50,119	349
859	904	**Intersil** (Cupertino, Calif)[1]	166,429	97,931	384	10,817	210	62,383	263
860	900	**Polychrome** (Yonkers, N.Y.)	166,381	119,989	310	1,428	427	44,598	380
861	889	**Towle Manufacturing** (Boston)	166,200	139,777	258	9,574	245	46,278	365
862	917	**Stride Rite** (Boston)[16]	166,018	92,696	402	6,317	327	49,767	351
863	883	**Angelica** (St. Louis)[10]	165,841	99,829	372	6,991	310	57,837	308
864	●	**U.S. Sugar** (Clewiston, Fla.)[11]	165,766	241,949	88	31,989	35	192,905	27
865	980	**Teradyne** (Boston)	164,970	146,280	247	11,370	202	83,392	197
866	853	**Houghton Mifflin** (Boston)	163,860	135,382	269	9,660	242	76,870	217
867	●	**Wausau Paper Mills** (Wausau, Wis.)[17]	163,718	101,953	368	6,720	319	32,664	436
868	923	**Multimedia** (Greenville, S.C.)	163,563	211,064	132	21,618	86	114,540	111
869	913	**Coleco Industries** (Hartford, Conn.)	162,907	79,217	449	16,677**	135	39,463	411
870	859	**Work Wear** (Cleveland)	162,755	106,340	354	3,115	392	47,092	362
871	845	**Puritan Fashions** (New York)	162,151	67,019	469	(3,441)	463	16,397	480
872	851	**Crompton** (New York)[1]	161,921	110,313	344	6,938	313	61,359	290
873	903	**Conwood** (Memphis)	161,567	97,268	388	15,950	143	73,653	231
874	856	**Anta** (Oklahoma City)[9]	160,672	102,804	365	7,455	298	62,411	281
875	826	**Cronus Industries** (Dallas)	159,858	82,421	439	920	439	16,827	478
876	945	**Ideal Toy** (Hollis, N.Y.)[10]	159,604	95,260	391	3,741	384	40,798	406
877	896	**George Banta** (Menasha, Wis.)	158,741	82,527	437	7,469	297	44,909	376
878	783	**Robintech** (Fort Worth, Tex.)[9]	158,653	93,373	397	(636)	451	29,819	448
879	879	**La-Z-Boy Chair** (Monroe, Mich.)[3]	158,194	111,583	338	9,807	238	77,088	215
880	882	**Stepan Chemical** (Northfield, Ill.)	157,517	137,688	266	5,422	344	50,498	346
881	921	**Augat** (Mansfield, Mass.)	157,294	147,855	241	18,010	123	82,884	199
882	890	**Telex** (Tulsa, Okla.)[5]	157,037	138,848	263	991	438	41,682	399
883	915	**Williamhouse-Regency** (New York)[9]	156,696	93,246	399	8,547	267	52,174	336
884	848	**Richardson** (Des Plaines, Ill.)	156,621	83,523	435	1,975	415	56,073	316
885	●	**FSC** (Pittsburgh)	156,237	302,581	41	3,787	383	19,150	473
886	898	**Franklin Electric** (Bluffton, Ind.)	156,088	93,430	396	2,239	408	47,803	359
887	991	**Daniel Industries** (Houston)[1]	155,849	117,840	319	9,336	251	69,778	248
888	840	**Core Industries** (Birmingham, Mich.)[17]	155,621	91,146	407	13,175	174	64,505	273
889	895	**Dyneer** (Westport, Conn.)[2]	155,276	89,274	416	7,010	308	45,530	369
890	792	**RSR** (Dallas)	155,221	63,213	478	2,158	410	24,577	464
891	950	**Sullair** (Michigan City, Ind.)	154,926	119,279	312	9,704	241	54,057	326
892	897	**Russell Burdsall & Ward** (Mentor, Ohio)[10]	154,470	60,292	482	1,845**	417	12,364	485
893	●	**Adobe Oil & Gas** (Midland, Tex.)	154,382	277,938	56	21,449	87	113,157	117
894	906	**Xcor International** (Great Neck, N.Y.)	154,350	82,514	438	572**	443	3,409	492
895	823	**Bundy** (Detroit)[2]	153,561	115,376	327	229	448	63,735	278
896	938	**Loral** (New York)[5]	153,306	175,173	188	12,434	184	108,701	127
897	924	**Gulton Industries** (Princeton, N.J.)[4]	153,137	86,575	424	5,723	338	40,206	409
898	928	**Valmont Industries** (Valley, Neb.)	152,466	98,329	381	6,103	330	38,118	419
899	905	**Warner Electric Brake & Clutch** (South Beloit, Ill.)	152,438	103,546	362	10,435	223	64,814	270
900	953	**Essex Chemical** (Clifton, N.J.)	152,119	90,486	411	5,500	341	28,979	454

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				INDUSTRY
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
2,400	325	1.5	393	6.0	397	0.81	0.96	N.A.	—		(3.41)	361			32
1,052	468	4.9	227	17.1	166	4.29	4.74	0.53	23.26	59	81.90	64	24.75	38	20
3,154	236	1.2	406	4.9	407	0.80	(0.17)	0.77	0.38	310	00.00	350	(6.79)	357	25
2,343	330	6.6	148	14.8	225	1.39	1.46	N.A.	—		21.85	232	—		38
1,900	384	2.6	339	7.5	381	1.44	1.12	0.42	13.11	188	0.92	343	4.12	277	27
1,033	469	9.1	82	39.2	10	2.10	1.31	0.12	33.14	25	89.24	52	23.77	46	43
2,000	372	9.9	59	16.7	177	2.23	1.95	N.A.	—		34.12	180	—		43
1,550	427	2.8	331	9.4	350	0.59	0.53	N.A.	—		84.64	58	—		34
3,500	201	6.5	150	17.3	161	1.27	1.65	(2.24)	—		36.93	163	—		44
1,938	379	0.9	419	3.2	427	N.A.	N.A.	N.A.	—		—		—		27
1,925	380	5.8	182	20.7	89	2.20	1.63	0.50	15.97	148	23.26	225	20.52	73	46
4,000	152	3.8	279	12.7	282	2.08	1.54	1.30	4.81	275	25.28	217	6.24	249	31
5,400	72	4.2	257	12.1	295	1.14	0.90	0.55	7.56	255	90.56	48	2.39	295	23
2,100†	366	19.3	7	16.6	181	6.53	3.29	1.21	18.36	110	33.59	182	17.15	98	20
3,050	246	6.9	137	13.6	263	2.75	2.36	0.40	21.26	79	36.28	169	14.27	135	36
1,900	385	5.9	179	12.6	285	3.33	4.68	0.80	15.33	156	(1.73)	355	10.67	190	27
1,725	413	4.1	267	20.6	91	1.74	1.49	0.18	25.47	45	1.25	339	—		26
2,800	274	13.2	28	18.9	130	2.15	1.87	0.41	18.02	117	37.77	161	—		48
1,700	419	10.2	52	42.3	8	2.33	1.32**	0.39	19.57	94	80.08	66	(3.52)	348	47
5,776	62	1.9	375	6.6	391	1.03	1.74	1.30	(2.30)	317	34.31	179	6.76	244	23
1,100	467	—		—		(0.96)	1.64**	0.32**	—		9.39	295	5.42	264	23
4,100	138	4.3	253	11.3	312	5.42	7.65	1.93	10.88	214	(18.87)	418	5.38	265	22
1,676	422	9.9	60	21.7	65	5.67	4.34	1.87**	11.73	203	66.34	90	17.55	95	21
3,234	227	4.6	238	11.9	300	1.77	1.74	(12.36)	—		53.94	121	—		34
1,798	404	0.6	436	5.5	403	0.40	1.46	N.A.	—		(36.27)	449	—		34
1,850†	395	2.3	356	9.2	354	0.97	(1.57)	0.71	3.17	289	(34.77)	447	(12.62)	370	47
1,990	375	4.7	233	16.6	179	3.06	2.41	0.72	15.57	152	52.96	125	—		27
1,700	418	—		—		(0.36)	(2.31)	0.02	—		(25.85)	436	1.58	308	30
3,628	186	6.2	164	12.7	280	2.14	1.65	N.A.	—		2.10	335	—		25
850	479	3.4	300	10.7	326	2.90	2.84	0.98	11.46	208	25.62	213	12.25	168	28
3,000	254	11.4	41	21.7	64	2.04	1.86	0.23	24.39	53	39.03	156	23.99	45	36
4,026	142	0.6	433	2.4	433	0.08	0.45	0.68	(19.27)	338	22.00	231	(11.54)	369	44
3,577	193	5.5	199	16.4	187	3.30	1.56	1.20	10.65	218	36.64	167	5.64	258	26
2,097	367	1.3	404	3.5	421	0.78	2.12	1.05	(2.93)	320	(39.81)	454	7.30	237	30
1,116	464	2.4	351	19.8	110	0.70	1.84	N.A.	—		36.36	168	—		29
3,450†	205	1.4	394	4.7	410	0.60	1.25	0.59	0.17	311	0.40	348	6.91	242	36
2,300	337	6.0	173	13.4	269	2.73	2.07	0.31	24.30	54	122.20	24	31.08	16	38
2,700	283	8.5	92	20.4	93	2.08	1.64	0.39	18.22	112	53.67	123	22.90	60	40
1,800	403	4.5	242	15.4	211	2.32	2.27	0.05	46.77	6	45.96	141	23.71	47	40
1,103	465	1.4	398	8.8	361	1.32	4.35	N.A.	—		22.45	227	—		33
1,545	429	6.3	161	18.0	151	2.42	2.46	N.A.	—		258.91	2	—		45
2,315†	333	1.2	407	14.9	223	0.56**	1.21	1.46	(9.14)	331	36.19	170	(4.95)	353	34
388	492	13.9	23	19.0	125	1.47	0.85	0.06	37.69	16	66.39	89	—		10
2,400	326	0.4	439	16.8	175	0.17**	(0.60)**	N.A.	—		23.81	221	—		47
2,701	281	0.1	447	0.4	448	0.06	2.05	1.12	(25.37)	339	(4.39)	367	2.99	290	33
3,843	163	8.1	98	11.4	310	1.84	1.65	(0.01)	—		73.24	78	38.24	8	36
3,667	181	3.7	284	14.2	239	1.95	1.45	0.03	51.81	4	18.53	248	8.75	219	36
1,890	392	4.0	269	16.0	198	4.70	3.25	0.11	45.57	8	27.16	207	18.56	85	45
2,865	266	6.8	138	16.1	194	4.02	3.83	0.75	18.28	111	47.51	136	21.03	65	45
981†	473	3.6	291	19.0	124	2.09	1.85	(0.15)**	—		70.60	87	23.02	57	28

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDER EQUITY ($000)	RAN
901	●	**Pirelli Cable** (Union, N.J.)	151,927	84,163	432	2,005	414	51,439	343
902	●	**Nytronics** (Phoenix)[2]	151,545	79,162	450	2,108	412	9,586	490
903	808	**ARTRA Group** (Northfield, Ill.)[25]	151,204	51,906	492	4,062	375	30,982	443
904	969	**International Rectifier** (Los Angeles)[9]	150,854	121,302	303	5,509‡	340	43,315	389
905	881	**J.M. Smucker** (Orrville, Ohio)[3]	150,622	73,092	459	6,693	321	48,137	358
906	●	**Texas American Energy** (Midland, Tex.)	149,585	159,620	226	4,784	356	29,132	453
907	●	**Nordson** (Amherst, Ohio)[18]	149,099	104,232	361	13,566	168	59,559	298
908	●	**Energy Reserves Group** (Wichita)	149,020	256,001	75	13,949	166	111,658	121
909	960	**Standard-Coosa-Thatcher** (Chattanooga, Tenn.)[1]	148,924	73,272	458	2,510	400	40,563	408
910	885	**Pantasote** (Greenwich, Conn.)	148,655	90,763	409	1,467**	426	32,209	437
911	982	**West** (Phoenixville, Pa.)	148,174	105,624	358	9,880	235	63,954	277
912	973	**Automatic Switch** (Florham Park, N.J.)	147,725	120,376	307	18,552	114	101,896	146
913	912	**Iroquois Brands** (Greenwich, Conn.)	147,644	98,251	382	2,660**	397	33,308	432
914	998	**Papercraft** (Pittsburgh)	147,395	142,840	251	11,645	198	76,436	219
915	867	**Mirro** (Manitowoc, Wis.)	146,990	88,153	420	3,490	387	48,465	356
916	911	**Aegis** (Coral Gables, Fla)	146,963	73,510	457	1,928	416	30,346	445
917	899	**Conrac** (Stamford, Conn.)	146,821	98,413	379	4,673	362	40,787	407
918	●	**Inexco Oil** (Houston)	146,606	545,059	9	22,576	80	204,259	23
919	990	**Federal Signal** (Oak Brook, Ill.)	146,546	91,130	408	9,920	233	51,761	338
920	901	**Baldor Electric** (Fort Smith, Ark.)	146,454	81,973	442	9,409	248	52,448	335
921	902	**Sta-Rite Industries** (Milwaukee)	146,381	98,983	375	169	450	34,140	429
922	813	**R.P. Scherer** (Troy, Mich.)[5]	146,045	116,101	325	6,150	328	71,690	239
923	●	**Hexcel** (San Francisco)	146,011	95,304	390	6,789	315	47,596	361
924	975	**Everest & Jennings International** (Los Angeles)	145,954	99,114	374	7,730	285	67,584	256
925	●	**Galveston-Houston** (Houston)	145,916	153,275	235	10,582	218	79,165	209
926	942	**Dynamics Corp. of America** (Greenwich, Conn.)	145,347	79,121	451	12,330	188	51,518	342
927	●	**Camco** (Houston)	144,650	106,182	355	6,729	318	46,769	363
928	822	**Texfi Industries** (Greensboro, N.C.)[11]	144,544	93,289	398	(21,504)	489	15,598	482
929	946	**Tonka** (Spring Park, Minn.)	144,438	83,733	433	19,829	103	51,691	339
930	937	**Helene Curtis Industries** (Chicago)[4]	144,238	66,399	474	2,462	401	32,142	438
931	1000	**Nortek** (Cranston, R.I.)	143,777	112,962	333	4,200	372	41,786	398
932	929	**Beverage Management** (Columbus, Ohio)[5]	143,262	69,294	465	4,429	368	34,893	425
933	876	**Medford** (Medford, Ore.)	143,241	76,862	454	9,361	250	55,297	322
934	968	**Medalist Industries** (Mequon, Wis.)	143,230	89,197	417	1,351	429	34,524	427
935	976	**Coca-Cola Bottling Co. of Miami** (Coral Gables, Fla.)	143,191	91,328	405	5,172	349	27,940	457
936	939	**Ronson** (Bridgewater, N.J.)	142,920	81,577	443	(5,590)	471	15,790	481
937	987	**Unifi** (Greensboro, N.C.)[6]	142,891	52,967	489	1,562	424	16,814	479
938	860	**Walco National** (New York)[9]	142,210	81,548	444	11,072	206	52,656	334
939	●	**AVX** (Great Neck, N.Y.)[9]	141,138	160,771	223	8,016	277	67,601	255
940	●	**Pall** (Glen Cove, N.Y.)[2]	140,803	132,530	281	18,873	111	70,694	243
941	949	**Combustion Equipment Associates** (New York)[5]	140,462	177,991	181	(23,569)	490	45,501	370
942	961	**Duriron** (Dayton, Ohio)	140,339	97,457	386	9,905	234	61,156	293
943	●	**Wallace Business Forms** (Hillside, Ill.)[2]	140,127	86,017	425	10,611	217	57,048	312
944	957	**General Binding** (Northbrook, Ill.)	139,562	103,155	364	8,255	272	58,161	306
945	997	**Simmonds Precision Products** (Tarrytown, N.Y.)	138,895	90,720	410	479	445	44,197	383
946	944	**Allegheny Beverage** (Baltimore)	138,867	86,875	423	5,445	343	27,558	458
947	984	**Newell Companies** (Freeport, Ill.)	138,521	86,006	426	7,820	280	44,441	382
948	842	**Soundesign** (Jersey City, N.J.)	138,242	76,968	453	992	437	31,551	442
949	947	**Russell Stover Candies** (Kansas City, Mo.)[17]	137,921	93,036	401	13,159	175	81,464	204
950	744	**Fedders** (Edison, N.J.)[11]	137,893	162,819	217	(28,952)	491	25,185	463

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[25] Name changed from Dutch Boy, December 31, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF				EARNINGS PER SHARE					TOTAL RETURN TO INVESTORS				
		SALES		STOCKHOLDERS' EQUITY					GROWTH RATE 1970-80		1980		1970-80 AVERAGE		INDUSTRY CODE
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	
1,135	463	1.3	400	3.9	419	N.A.	N.A.	N.A.	—		—		—		34
1,896	390	1.4	397	22.0	61	0.67	1.14**	(46.70)‡	—		—		—		45
1,190	456	2.7	337	13.1	274	1.86	1.36	0.46	14.99	160	48.79	135	8.99	216	30
2,420	322	3.7	289	12.7	281	2.01‡	2.31	0.30	20.95	82	(18.41)	415	13.21	153	36
1,151	458	4.4	248	13.9	251	3.35	2.93	1.39	9.20	240	50.46	129	9.12	214	20
728	482	3.2	308	16.4	186	0.74	0.63	0.15	17.30	124	49.36	132	22.89	61	29
2,448	319	9.1	78	22.8	54	2.60	2.50	N.A.	—		—		—		45
558	489	9.4	73	12.5	287	0.29	0.32	0.09	12.41	193	86.92	54	15.86	114	10
3,600	190	1.7	386	6.2	395	3.68	2.90	2.54	3.78	284	24.93	219	10.43	192	22
2,470†	316	1.0	414	4.6	412	0.38**	0.28	0.10**	14.28	169	(8.00)	382	1.32	313	30
3,096	242	6.7	143	15.4	210	2.55	2.05	0.43	19.48	95	52.33	126	14.00	141	30
1,775	406	12.6	33	18.2	143	2.26	1.85	0.57	14.77	162	38.74	158	16.41	106	36
1,265	452	1.8	381	8.0	370	1.34**	1.01	(1.12)	—		0.13	349	6.65	245	49
2,245	344	7.9	101	15.2	218	3.24	2.82	1.41	8.68	246	13.24	278	1.05	314	26
3,051	244	2.4	353	7.2	385	1.49	2.02	1.29	1.45	304	(6.99)	380	5.80	254	34
1,717	416	1.3	402	6.4	392	0.18	0.27	(0.26)	—		15.34	263	(1.78)	338	30
2,514	309	3.2	309	11.5	309	2.05	0.42	0.74	10.73	217	14.60	269	9.36	212	36
704	484	15.4	15	11.1	315	0.94	0.73	0.23	15.12	158	72.15	81	16.71	103	10
2,284	338	6.8	139	19.2	120	1.88	1.61	0.52	13.71	180	68.56	88	20.16	77	36
2,500	314	6.4	154	17.9	152	1.50	1.50	0.19	22.95	62	(5.05)	372	—		36
2,106	360	0.1	449	0.5	445	(0.21)	1.94	0.48	—		(36.78)	450	9.49	208	45
1,760	408	4.2	258	8.6	363	0.67	1.08	N.A.	—		64.59	94	—		28
2,182†	351	4.6	237	14.3	238	2.31	1.93	0.38	19.78	92	76.75	70	23.26	56	28
2,500	313	5.3	209	11.4	311	1.38	1.24	0.27	17.72	121	153.57	11	20.91	67	38
1,947	378	7.3	122	13.4	270	2.16	1.47	0.0022	99.16	1	46.22	139	—		45
2,150	357	8.5	91	23.9	47	2.28	0.61	(2.00)	—		34.83	176	4.11	278	36
2,280	339	4.7	236	14.4	233	1.87	1.93	0.69	10.48	221	71.93	83	12.39	165	45
2,090	368	—		—		(6.24)	(0.98)	1.76	—		(23.51)	429	(21.48)	377	22
1,800†	402	13.7	24	38.4	12	12.04	2.10	0.71	32.72	27	62.18	99	7.85	233	47
1,800	399	1.7	384	7.7	375	1.22	0.97	0.86**	3.56	287	51.86	127	1.82	304	43
2,700	287	2.9	325	10.1	340	1.41	1.32	1.55	(0.94)	314	(16.94)	414	(7.45)	359	34
2,166	354	3.1	314	12.7	283	1.11	1.61	N.A.	—		18.17	252	—		49
1,742	410	6.5	149	16.9	173	3.78	4.24	0.44**	23.99	58	(20.65)	422	—		26
2,443	320	0.9	416	3.9	418	0.51	2.35	0.71	(3.25)	321	(12.91)	403	3.79	281	47
1,448	436	3.6	292	18.5	139	3.15	2.65	N.A.	—		82.86	62	—		49
2,774	275	—		—		(1.27)	0.15	0.19	—		(20.74)	423	(5.87)	354	46
1,150	460	1.1	409	9.3	352	0.65	2.07	N.A.	—		57.08	114	—		22
1,681	421	7.8	103	21.0	79	4.24	2.97	0.68**	20.08	87	28.01	204	24.26	42	34
4,191	135	5.7	187	11.9	302	1.76	2.00	N.A.	—		12.00	283	—		36
3,000	256	13.4	26	26.7	30	2.13	1.67	0.02‡	59.49	3	101.51	33	48.65	1	45
2,400	327	—		—		(2.55)	(0.65)	0.12**	—		(69.66)	464	(6.13)	355	45
2,236	345	7.1	131	16.2	190	2.15	2.03	0.59	13.80	175	57.37	113	22.92	59	45
1,693	420	7.6	113	18.6	136	4.90	3.76	1.16	15.50	154	75.77	72	14.16	137	27
2,764	277	5.9	178	14.2	244	1.65	1.42	0.43	14.39	167	75.22	75	4.14	276	45
3,300	221	0.3	441	1.1	441	0.10	1.35	(1.92)	—		14.59	270	15.54	118	47
1,300	449	3.9	274	19.8	111	1.41	1.26	0.26	18.42	108	61.98	100	14.21	136	49
2,700	286	5.6	190	17.6	157	2.52	2.30	N.A.	—		41.33	151	—		25
1,300	450	0.7	428	3.1	428	0.40	0.30**	0.36	1.06	307	6.06	310	4.61	273	36
3,500	199	9.5	67	16.2	191	2.01	2.24	0.79	9.79	234	0.97	342	3.24	287	20
2,250	342	—		—		(2.79)	(3.47)	1.57	—		75.96	71	(14.74)	373	45

THE SECOND 500 LARGEST INDUSTRIALS

RANK '80	RANK '79	COMPANY	SALES ($000)	ASSETS ($000)	ASSETS RANK	NET INCOME ($000)	NET INCOME RANK	STOCKHOLDERS' EQUITY ($000)	STOCKHOLDERS' EQUITY RANK
951	●	**Sealaska** (Juneau, Alaska)	137,876	280,621	54	5,941**	335	198,871	24
952	958	**Scholastic** (New York)[17,26]	137,448	83,291	436	2,753	396	33,136	433
953	948	**Courier** (Lowell, Mass.)[1]	137,198	73,538	456	6,346	326	35,228	424
954	918	**Swank** (Attleboro, Mass.)	137,100	85,118	428	7,564	293	58,246	304
955	992	**Marion Laboratories** (Kansas City, Mo.)[9]	137,010	99,860	371	6,777	317	67,350	258
956	838	**Elixir Industries** (Gardena, Calif.)[9]	136,922	66,418	473	(2,466)	458	38,670	416
957	988	**Valspar** (Minneapolis)[11]	136,629	57,578	483	4,024	377	30,243	446
958	●	**Genesee Brewing** (Rochester, N.Y.)[3]	136,594*	64,007	476	7,038	307	43,824	385
959	962	**Binks Manufacturing** (Franklin Park, Ill.)[16]	136,452	88,776	418	7,745	284	58,299	303
960	827	**C.H. Masland & Sons** (Carlisle, Pa.)	135,900	70,819	464	(3,279)	462	29,809	449
961	●	**Analog Devices** (Norwood, Mass.)[11]	135,660	125,984	291	9,443	246	49,337	353
962	●	**Glenmore Distilleries** (Louisville, Ky.)[10]	135,492*	111,355	339	6,443	325	59,258	300
963	●	**Moog** (East Aurora, N.Y.)[1]	135,300	112,516	334	6,781	316	41,189	401
964	943	**Union Special** (Chicago)	135,055	140,541	255	4,153‡	374	98,216	159
965	920	**Publicker Industries** (Greenwich, Conn.)	134,872*	134,326	274	854	440	79,133	210
966	●	**Tokheim** (Fort Wayne, Ind.)[16]	134,841	85,764	427	8,918	262	43,049	391
967	●	**Mount Vernon Mills** (Greenville, S.C.)	134,755	72,530	460	5,331	347	51,519	341
968	●	**Spectra-Physics** (San Jose, Calif.)[1]	134,576	107,985	351	9,414	247	56,428	314
969	916	**Facet Enterprises** (Tulsa)[1]	134,221	97,437	387	(6,464)‡	474	44,696	378
970	986	**Woodward Governor** (Rockford, Ill.)[1]	134,155	94,435	395	9,656	243	67,381	257
971	971	**Hazeltine** (Commack, N.Y.)	133,799	90,258	412	4,840	353	45,124	373
972	●	**Lee Enterprises** (Davenport, Iowa)[1]	133,776	164,475	216	20,050	101	93,708	165
973	●	**American Welding & Manufacturing** (Warren, Ohio)[16]	133,624	53,468	488	10,347	224	34,140	430
974	941	**Hasbro Industries** (Pawtucket, R.I.)	133,600	54,554	487	5,041	351	23,345	467
975	936	**Munsingwear** (Minneapolis)	133,530	84,656	430	(3,848)	466	34,164	428
976	935	**TMC Industries** (Rome, Ga.)[5]	133,494	66,469	471	(2,067)**	456	837	496
977	786	**Dayton Malleable** (Kettering, Ohio)[17]	133,242	71,355	462	(5,462)	470	48,607	355
978	951	**Watkins-Johnson** (Palo Alto, Calif.)	132,794	109,408	347	7,092	306	65,850	264
979	●	**Varlen** (Rolling Meadows, Ill.)[10]	132,626	64,863	475	6,508	324	25,448	461
980	963	**Cadence Industries** (West Caldwell, N.J.)	131,340	98,409	380	2,397**	404	31,808	440
981	926	**Roblin Industries** (Buffalo, N.Y.)	130,737	91,671	404	(6,945)	476	17,560	476
982	●	**Keystone International** (Houston)	130,621	121,478	300	17,257	131	67,314	259
983	●	**Monarch Machine Tool** (Sidney, Ohio)	130,003	89,909	414	12,297	190	55,784	319
984	●	**American Microsystems** (Santa Clara, Calif.)	129,369	81,068	445	4,260	371	53,927	327
985	●	**Garan** (New York)[1]	128,481	77,521	452	6,845	314	45,393	372
986	●	**John Fluke Mfg.** (Mountlake Terrace, Wash.)[1]	128,174	107,255	352	9,625	244	53,357	329
987	956	**National Mine Service** (Pittsburgh)[9]	127,608	115,495	326	2,405	403	56,394	315
988	995	**Centronics Data Computer** (Hudson, N.H.)[9]	127,608	168,030	204	18,008	124	73,879	230
989	●	**Edgewater** (Oakmont, Pa.)	127,135	66,428	472	7,180	304	38,770	415
990	●	**R.G. Barry** (Pickerington, Ohio)	126,815	61,657	479	2,357	407	30,058	447
991	979	**Great Lakes Chemical** (West Lafayette, Ind.)	126,705	118,407	316	18,948	110	93,258	169
992	908	**Conrock** (Los Angeles)	126,554	87,757	422	9,323	252	69,063	251
993	●	**Compo Industries** (Waltham, Mass.)[1]	126,309	61,255	480	(869)	453	20,609	471
994	●	**Standard Motor Products** (Long Island City, N.Y.)	125,875	94,964	393	3,293	389	45,447	371
995	●	**Vernitron** (Lake Success, N.Y.)	125,325	79,809	447	7,432	299	39,280	413
996	824	**Coachmen Industries** (Middlebury, Ind.)	125,305	55,254	486	(7,582)	477	33,002	434
997	●	**Bob Evans Farms** (Columbus, Ohio)[3]	125,210	55,974	485	11,398	201	44,533	381
998	940	**Lehigh Valley Industries** (New York)	125,087	52,872	490	1,643**	422	4,148	491
999	974	**Chickasha Cotton Oil** (Fort Worth, Tex.)[9]	125,004	60,915	481	3,228	390	33,430	431
1,000	978	**Reading Industries** (Reading, Pa.)	124,696	37,113	496	(1,881)	455	511	497
		TOTALS	**119,978,252**	**86,870,983**		**5,998,535**		**42,762,472**	

N.A. Not available.

●Not among the 500 or the Second 500 in 1979.

*Does not include excise taxes; see the explanation of "sales" on page 218.

**Reflects an extraordinary credit of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

†Average for the year; see the reference to "employees" on page 218.

‡Reflects an extraordinary charge of at least 10 percent; see the explanations of "net income" and "earnings per share" on page 218.

[26] Name changed from Scholastic Magazines, August 29, 1980.

EMPLOYEES		NET INCOME AS PERCENT OF SALES		NET INCOME AS PERCENT OF STOCKHOLDERS' EQUITY		EARNINGS PER SHARE			EARNINGS PER SHARE GROWTH RATE 1970-80		TOTAL RETURN TO INVESTORS 1980		TOTAL RETURN TO INVESTORS 1970-80 AVERAGE		INDUSTRY
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK	CODE
1,500†	432	4.3	252	3.0	429	3.77**	(0.93)	N.A.	—		—		—		20
2,246†	343	2.0	373	8.3	367	1.60	2.65	1.02	4.60	278	(23.47)	428	1.70	305	27
2,947	260	4.6	239	18.0	147	2.14	2.17	N.A.	—		(3.64)	362	—		27
3,100	241	5.5	197	13.0	277	2.25	3.39	1.37	5.09	271	4.92	319	8.47	222	31
1,500	433	4.9	225	10.1	339	0.81	0.73	0.65	2.23	300	46.41	138	1.57	309	42
1,432	438	—		—		(0.55)	0.30	0.54	—		2.60	333	(0.64)	329	34
1,300	451	2.9	323	13.3	272	1.50	1.41	0.06	37.97	15	13.32	277	11.93	173	28
932	474	5.2	216	16.1	195	4.30	3.77	1.18	13.80	176	77.46	69	—		49
1,500	434	5.7	188	13.3	273	2.53	3.17	1.00	9.73	235	25.44	215	17.55	96	45
1,911	382	—		—		(2.15)	(1.92)	0.85	—		(40.05)	455	(8.29)	363	22
2,726	280	7.0	136	19.1	121	1.40	1.12	0.05	39.55	13	100.29	34	32.16	12	36
927	477	4.8	231	10.9	320	3.70	3.61	0.55	21.00	81	(14.70)	409	12.33	166	34
2,730	279	5.0	221	16.5	184	1.09	0.80	0.06**	33.64	24	135.91	17	38.61	5	38
2,900	262	3.1	315	4.2	416	1.47‡	2.97	N.A.	—		(12.42)	401	—		36
928	475	0.6	432	1.1	442	0.09	1.18	0.10**	(1.05)	315	(18.74)	416	2.71	294	49
1,910	383	6.6	146	20.7	87	3.06	2.21	0.50	19.86	90	102.42	32	24.13	43	45
2,800	272	4.0	272	10.3	332	6.47	6.15	2.58**	9.63	236	28.55	202	11.70	175	22
2,222	347	7.0	133	16.7	178	2.21	1.93	(0.05)‡	—		32.72	186	—		38
2,638	296	—		—		(2.31)‡	1.60	N.A.	—		4.67	320	—		40
2,332	332	7.2	127	14.3	234	51.27	53.35	11.33	16.30	139	—		—		38
2,825	268	3.6	290	10.7	327	2.37	2.63	0.52	16.38	138	39.88	154	14.39	133	36
3,900	160	15.0	16	21.4	73	2.79	2.13	0.66**	15.51	153	(1.80)	356	18.01	88	27
901	478	7.7	104	30.3	23	8.16	4.13	1.13	21.86	71	134.50	18	28.89	20	45
1,500†	431	3.8	282	21.6	66	2.76	1.55	0.20	30.01	33	63.35	96	7.25	239	47
4,869	97	—		—		(2.90)	1.12	1.46	—		43.84	145	5.78	255	23
1,849	396	—		—		(2.08)**	1.79**	N.A.	—		(28.41)	443	—		22
2,536†	307	—		—		(3.70)	2.12	1.35	—		3.02	329	12.05	170	33
2,700	288	5.3	206	10.8	324	2.23	2.32	0.97	8.68	245	28.02	203	8.92	218	36
1,876	394	4.9	226	25.6	39	2.17	1.71	0.24	24.63	48	34.75	177	—		34
2,500	312	1.8	379	7.5	378	2.38**	3.21	1.67**	3.61	285	(26.35)	438	5.85	253	27
1,717	415	—		—		(2.98)	0.17	0.11**	—		(47.63)	460	(1.22)	336	33
1,400	441	13.2	29	25.6	37	1.88	1.50	0.15	28.77	40	59.31	107	42.01	4	34
1,777	405	9.5	70	22.0	60	3.50	2.66	0.31	27.43	43	123.85	23	23.52	52	45
3,347	216	3.3	305	7.9	372	1.01	1.22**	1.57**	(4.32)	323	36.05	171	—		36
4,400	120	5.3	208	15.1	220	2.52	1.80	0.39	20.51	84	64.68	93	14.87	129	22
2,631	297	7.5	116	18.0	146	1.56	1.51	0.11	30.37	31	20.87	234	30.17	19	38
1,731	412	1.9	377	4.3	415	0.50	0.74	N.A.	—		8.30	298	—		45
	273	14.1	22	24.4	43	3.01	3.10	N.A.	—		(53.39)	463	—		44
1,149†	461	5.6	189	18.5	138	14.47	16.64**	0.66‡	36.17	19	—		—		33
3,800	168	1.9	378	7.8	373	0.62	0.55	0.32	6.84	257	(16.07)	412	9.02	215	23
1,000	470	15.0	17	20.3	96	2.67	2.65	0.20	29.58	36	14.85	265	26.56	30	28
1,138	462	7.4	120	13.5	267	4.67	5.50	1.62	11.17	213	7.57	302	11.97	172	32
1,370	443	—		—		(0.26)	0.88	0.39	—		(42.27)	458	4.35	274	22
2,600	302	2.6	341	7.2	384	1.11	1.80	0.78	3.59	286	37.89	160	9.73	203	40
3,050	247	5.9	176	18.9	127	1.34	1.04	(3.38)‡	—		149.44	12	12.60	163	36
2,059	370	—		—		(2.09)	(2.60)	0.13	—		13.65	275	9.80	200	37
4,800	103	9.1	77	25.6	38	2.03	1.29	0.15	29.76	34	14.12	271	30.25	18	20
1,755	409	1.3	401	39.6	9	0.19**	(2.36)	(0.71)	—		00.00	351	(11.26)	368	22
1,150†	459	2.6	344	9.7	347	13.46	14.60	3.57**	14.19	171	—		—		20
640	487	—		—		(2.11)	(1.87)	(0.20)	—		(14.80)	410	(8.63)	364	33
1,702,416															

NOTES TO THE FORTUNE DIRECTORY

SALES include service and rental revenues but exclude dividends, interest, and other non-operating revenues. All companies on the list must have derived more than 50 percent of their sales from manufacturing and/or mining. Sales of subsidiaries are included when they are consolidated; sales from discontinued operations are included when these figures are published. All figures are for the year ending December 31, 1980, unless otherwise noted. Sales figures do not include excise taxes collected by the manufacturer, and so the figures for some corporations—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the corporations themselves. When they are at least 5 percent lower for this reason, there is an asterisk (*) next to the sales figure.

ASSETS are those shown at the company's year-end.

NET INCOME is shown after taxes and after extraordinary credits or charges when any are shown on the income statement. A double asterisk (**) signifies an extraordinary credit reflecting at least 10 percent of the net income shown, a double dagger (‡) an extraordinary charge of at least 10 percent. Figures in parentheses indicate a loss.

STOCKHOLDERS' EQUITY is the sum of capital stock, surplus, and retained earnings at the company's year-end. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company, except in the case of cooperatives.

EMPLOYEES: The figure shown is a year-end total except when it is followed by a dagger (†), in which case it is an average for the year.

EARNINGS PER SHARE: For all companies, the figures shown for 1980 and 1979 are the "primary" earnings per share that appear on the company's income statement. These figures are based on a weighted average of the number of common shares and common-stock equivalents outstanding during the year. "Common-stock equivalents" generally include (a) convertible securities whose cash yield is less than two-thirds of the prime rate at the time the securities were issued and (b) options and warrants when the effect of their inclusion in the computation would reduce the "primary" earnings per share. Per-share earnings for 1979 and 1970 are adjusted for stock splits and stock dividends. They are not restated for mergers, acquisitions, or accounting changes made after 1970. A double asterisk (**) signifies an extraordinary credit reflecting at least 10 percent of the net income shown, a double dagger (‡) an extraordinary charge of a least 10 percent. Results are listed as not available (N.A.) where the companies are cooperatives, joint ventures, or wholly owned subsidiaries of other companies, or if the figures were not published in 1970. The growth rate is the average annual growth, compounded. No growth rate is given if the company had a loss in either 1970 or 1980.

TOTAL RETURN TO INVESTORS includes both price appreciation and dividend yield to an investor in the company's stock. The figures shown assume sales at the end of 1980 of stock owned at the end of 1970 or 1979. It has been assumed that any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spin-offs were reinvested at the end of the year in which they were received. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. Results are listed as not available (N.A.) where shares are not publicly traded or traded on only a limited basis. Where companies have more than one class of shares outstanding, only the more widely held and actively traded has been considered.

Total-return percentages shown are the returns received by the hypothetical investor described above. The ten-year figures are annual averages, compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

INDUSTRY CODE numbers used in the directory indicate which industry represents the greatest volume of industrial sales for each company. The numbers refer to the industry groups below, which are based on categories established by the U.S. Office of Management and Budget and issued by the Federal Statistical Policy and Standards Office. They are the same industry groups as those shown in the tables beginning on this page. The median figures in the tables refer only to results of companies among the 500; no attempt has been made to calculate medians in groups with fewer than four companies.

CODE NO.	INDUSTRY
10	Mining, crude-oil production
20	Food
21	Tobacco
22	Textiles, vinyl flooring
23	Apparel
25	Furniture
26	Paper, fiber, and wood products
27	Publishing, printing
28	Chemicals
29	Petroleum refining
30	Rubber, plastic products
31	Leather
32	Glass, concrete, abrasives, gypsum
33	Metal manufacturing
34	Metal products
36	Electronics, appliances
37	Shipbuilding, railroad and transportation equipment
38	Measuring, scientific, photographic equipment
40	Motor vehicles
41	Aerospace
42	Pharmaceuticals
43	Soaps, cosmetics
44	Office equipment (includes computers)
45	Industrial and farm equipment
46	Jewelry, silverware
47	Musical instruments, toys, sporting goods
48	Broadcasting, motion-picture production and distribution
49	Beverages

WHO DID BEST (AND WORST) AMONG THE SECOND 500

TOTAL RETURN TO INVESTORS, 1980

THE TEN HIGHEST

	SALES RANK	
Prime Computer	676	273.03%
Sullair	891	258.91
Carlisle	548	250.55
Computervision	742	219.57
M/A-Com	611	206.86
GCA	848	186.65
LeaRonal	783	180.76
Franklin Mint	566	164.94
Southland Royalty	562	159.56
Florida Steel	652	156.93

THE FIVE LOWEST

Combustion Equipment	941	−69.66%
Centronics Data Computer	988	−53.39
Arctic Enterprises	815	−51.35
Lamson & Sessions	631	−48.59
Roblin Industries	981	−47.63

THE INDUSTRY MEDIANS

Mining, crude-oil production	64.03%
Soaps, cosmetics	51.86
Chemicals	46.94
Pharmaceuticals	46.41
Office equipment (includes computers)	39.63
Broadcasting, motion-picture production and distribution	37.77
Electronics, appliances	35.44
Jewelry, silverware	34.71
Beverages	30.06
Apparel	28.79
Industrial and farm equipment	26.24
Petroleum refining	21.39
Measuring, scientific, photographic equipment	21.36
Musical instruments, toys, sporting goods	21.13
Glass, concrete, abrasives, gypsum	16.69
Furniture	14.85
Shipbuilding, railroad and transportation equipment	13.65
Food	11.92
Textiles, vinyl flooring	10.22
Metal products	9.68
Publishing, printing	7.63
Metal manufacturing	6.39
Paper, fiber, and wood products	5.81
Motor vehicles	5.63
Rubber, plastic products	2.72
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.
All industries	**21.57**

TOTAL RETURN TO INVESTORS, 1970-80

THE TEN HIGHEST

	SALES RANK	
Pall	940	48.65%
First Mississippi	711	47.38
Southland Royalty	562	44.12
Keystone International	982	42.01
Gates Learjet	576	38.66
Moog	963	38.61
Scientific-Atlanta	799	38.54
Loral	896	38.24
OKC	621	34.49
M/A-Com	611	33.87

THE FIVE LOWEST

Texfi Industries	928	−21.48%
Grolier	618	−19.26
Instrument Systems	810	−18.77
Arctic Enterprises	815	−17.73
Fedders	950	−14.74

THE INDUSTRY MEDIANS

Petroleum refining	24.39%
Mining, crude-oil production	16.44
Measuring, scientific, photographic equipment	16.34
Jewelry, silverware	14.84
Broadcasting, motion-picture production and distribution	14.55
Electronics, appliances	13.77
Food	13.05
Chemicals	12.63
Industrial and farm equipment	11.87
Metal products	11.23
Paper, fiber, and wood products	11.20
Publishing, printing	10.67
Glass, concrete, abrasives, gypsum	10.38
Motor vehicles	8.12
Musical instruments, toys, sporting goods	7.55
Textlies, vinyl flooring	7.44
Office equipment (includes computers)	7.22
Beverages	6.65
Rubber, plastic products	5.82
Furniture	5.65
Apparel	5.42
Metal manufacturing	3.85
Soaps, cosmetics	3.40
Pharmaceuticals	3.15
Shipbuilding, railroad and transportation equipment	2.67
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.
All Industries	**10.88**

RETURN ON STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	SALES RANK	
Rath Packing	517	125.2%
OKC	621	68.2
Cooper Laboratories	841	63.6
Southland Royalty	562	58.1
Phoenix Steel	837	54.8
Commerce Clearing House	695	53.1
Ag-MET	627	42.6
Coleco Industries	869	42.3
Lehigh Valley Industries	998	39.6
Mary Kay Cosmetics	856	39.2

THE INDUSTRY MEDIANS

	1980	1979
Jewelry, silverware	18.7%	15.2%
Petroleum refining	18.1	25.9
Musical instruments, toys, sporting goods	16.8	13.8
Soaps, cosmetics	16.7	13.9
Publishing, printing	16.5	16.5
Office equipment (includes computers)	16.4	17.6
Paper, fiber, and wood products	16.0	17.9
Food	15.2	12.1
Beverages	15.2	17.9
Mining, crude-oil production	15.0	16.3
Chemicals	15.0	14.1
Electronics, appliances	14.7	17.1
Industrial and farm equipment	14.5	15.8
Broadcasting, motion-picture production and distribution	14.4	17.7
Furniture	13.9	15.2
Pharmaceuticals	13.9	16.4
Glass, concrete, abrasives, gypsum	13.5	17.1
Measuring, scientific, photographic equipment	12.4	16.2
Metal products	12.2	15.8
Textiles, vinyl flooring	10.5	11.5
Metal manufacturing	9.0	11.8
Motor vehicles	8.4	15.9
Apparel	7.8	11.9
Rubber, plastic products	7.6	11.2
Shipbuilding, railroad and transportation equipment	5.3	10.7
Aerospace	N.A.	N.A.
Leather	N.A.	N.A.
Tobacco	N.A.	16.0
All Industries	**14.2**	**15.6**

RETURN ON SALES

THE TEN HIGHEST

	SALES RANK	
Cooper Laboratories	841	34.3%
Homestake Mining	632	33.6
Mesa Petroleum	560	25.8
General American Oil	726	24.7
Pogo Producing	746	24.5
Houston Oil & Minerals	541	20.1
U.S. Sugar	864	19.3
Tampax	774	17.9
California Portland Cement	769	17.5
Fort Howard Paper	538	17.3

THE INDUSTRY MEDIANS

	1980	1979
Mining, crude-oil production	13.6%	13.7%
Broadcasting, motion-picture production and distribution	12.6	14.8
Office equipment (includes computers)	6.5	8.7
Soaps, cosmetics	6.4	5.2
Glass, concrete, abrasives, gypsum	5.9	6.4
Electronics, appliances	5.9	5.8
Pharmaceuticals	5.9	7.1
Paper, fiber, and wood products	5.7	7.1
Furniture	5.6	5.9
Publishing, printing	5.4	5.2
Measuring, scientific, photographic equipment	5.4	5.8
Jewelry, silverware	5.4	5.1
Industrial and farm equipment	5.1	5.5
Metal products	4.5	4.1
Chemicals	3.9	3.5
Musical instruments, toys, sporting goods	3.8	2.8
Beverages	3.8	5.5
Petroleum refining	3.2	6.5
Motor vehicles	2.8	4.7
Food	2.6	1.9
Textiles, vinyl flooring	2.5	2.9
Rubber, plastic products	2.0	3.1
Apparel	1.9	3.4
Shipbuilding, railroad and transportation equipment	1.8	2.3
Metal manufacturing	1.4	2.6
Aerospace	N.A.	N.A.
Leather	N.A.	N.A.
Tobacco	N.A.	5.1
All Industries	**4.5**	**4.7**

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	SALES RANK	
Sealaska	951	684.3%
Ag-MET	627	183.0
M/A-Com	611	160.1
Richmond Tank Car	721	118.3
Imperial Sugar	655	98.4
Camco	927	89.9
Wausau Paper Mills	867	84.2
Mary Kay Cosmetics	856	82.6
Marion	608	78.4
GCA	848	76.1

THE TEN BIGGEST DECREASES

Champion Home Builders	751	33.9%
Fedders	950	32.8
Dayton Malleable	977	27.6
Hayes-Albion	821	27.4
Coachmen Industries	996	25.4
Skyline	596	22.1
Howell	657	18.9
Sterndent	749	18.8
Hanna Mining	597	18.4
C.H. Masland & Sons	960	18.3

THE INDUSTRY MEDIANS

	INCREASES
Petroleum refining	41.9%
Mining, crude-oil production	34.1
Broadcasting, motion-picture production and distribution	20.7
Food	16.5
Office equipment (includes computers)	16.2
Jewelry, silverware	16.2
Musical instruments, toys, sporting goods	15.6
Measuring, scientific, photographic equipment	15.5
Chemicals	14.8
Apparel	14.5
Electronics, appliances	14.4
Textiles, vinyl flooring	13.9
Publishing, printing	13.9
Pharmaceuticals	13.8
Soaps, cosmetics	13.6
Industrial and farm equipment	12.1
Paper, fiber, and wood products	11.2
Beverages	10.8
Furniture	7.6
Glass, concrete, abrasives, gypsum	6.1
Shipbuilding, railroad and transportation equipment	5.9
Metal products	2.9
Rubber, plastic products	2.6
Metal manufacturing	1.8

	DECREASES
Motor vehicles	1.3%
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES *

	SALES RANK	
Imperial Sugar	655	1,404.3%
DHJ Industries	820	903.3
Tonka	929	477.1
Cooper Laboratories	841	406.7
Alaska Interstate	557	380.5
First Mississippi	711	353.9
Condec	666	316.6
American Shipbuilding	818	289.4
Conrac	917	277.2
Terra Chemicals International	638	275.3

THE TEN BIGGEST DECREASES *

Management Assistance	626	98.7%
Bundy	895	97.3
Sta-Rite Industries	921	96.9
Longview Fibre	568	96.6
Simmonds Precision Prod.	945	92.3
Hesston	716	91.4
Publicker Industries	965	91.4
Halstead Industries	789	89.6
Tyson Foods	546	86.9
Franklin Mint	566	85.3

*Listings exclude money losers.

THE INDUSTRY MEDIANS

	INCREASES
Musical instruments, toys, sporting goods	56.4%
Soaps, cosmetics	19.3
Broadcasting, motion-picture production and distribution	15.8
Furniture	15.6
Jewelry, silverware	14.6
Electronics, appliances	12.9
Publishing, printing	12.2
Beverages	12.0
Food	10.6
Chemicals	10.4
Pharmaceuticals	10.4
Mining, crude-oil production	10.2
Measuring, scientific, photographic equipment	10.0
Paper, fiber, and wood products	7.8
Industrial and farm equipment	7.0
Textiles, vinyl flooring	6.7
Office equipment (includes computers)	1.7

	DECREASES
Motor vehicles	40.7%
Petroleum refining	38.7
Metal manufacturing	25.0
Apparel	16.0
Shipbuilding, railroad and transportation equipment	8.5
Metal products	7.6
Glass, concrete, abrasives, gypsum	5.3
Rubber, plastic products	5.1
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.

SALES PER DOLLAR OF STOCKHOLDERS' EQUITY

THE TEN HIGHEST

	SALES RANK	
Reading Industries	1000	$244.02
TMC Industries	976	159.49
Rath Packing	517	158.83
Commodore	828	89.71
Phoenix Steel	837	76.07
Xcor International	894	45.28
Dairylea Cooperative	525	35.77
Illini Beef Packers	628	30.58
Lehigh Valley Industries	998	30.16
Keystone Foods	551	20.03

THE FIVE LOWEST

Storer Broadcasting	788	$ .77
Mesa Petroleum	560	.72
Inexco Oil	918	.72
Sealaska	951	.69
General American Oil	726	.62

THE INDUSTRY MEDIANS

Food	$6.64
Petroleum refining	5.57
Rubber, plastic products	4.61
Shipbuilding, railroad and transportation equipment	4.42
Apparel	4.17
Musical instruments, toys, sporting goods	4.13
Beverages	4.04
Textiles, vinyl flooring	3.73
Metal manufacturing	3.60
Jewelry, silverware	3.26
Metal products	3.16
Chemicals	3.07
Publishing, printing	3.01
Industrial and farm equipment	2.97
Measuring, scientific, photographic equipment	2.91
Motor vehicles	2.83
Electronics, appliances	2.75
Furniture	2.69
Soaps, cosmetics	2.57
Glass, concrete, abrasives, gypsum	2.36
Paper, fiber, and wood products	2.31
Office equipment (includes computers)	2.24
Pharmaceuticals	1.97
Mining, crude-oil production	1.35
Broadcasting, motion-picture production and distribution	1.26
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.
All industries	3.12

SALES PER EMPLOYEE

THE TEN HIGHEST

	SALES RANK	
Pogo Producing	746	$1,343,866
Holly	524	1,169,630
OKC	621	1,052,155
Pauley Petroleum	832	886,965
LeaRonal	783	792,227
Howell	657	784,760
Southland Royalty	562	704,944
Macmillan Ring-Free Oil	795	676,136
Wisconsin Dairies Cooperative	586	630,418
Seaboard Allied Milling	529	553,214

THE FIVE LOWEST

Oxford Industries	678	$27,146
CTS	809	26,652
William Carter	846	26,319
Bob Evans Farms	997	26,085
Stanley Home Products	730	23,454

THE INDUSTRY MEDIANS

Petroleum refining	$398,152
Mining, crude-oil production	136,226
Food	119,781
Beverages	116,715
Chemicals	105,099
Metal manufacturing	97,577
Paper, fiber, and wood products	89,247
Rubber, plastic products	82,188
Shipbuilding, railroad and transportation equipment	82,169
Glass, concrete, abrasives, gypsum	81,077
Soaps, cosmetics	80,132
Pharmaceuticals	77,201
Musical instruments, toys, sporting goods	70,380
Industrial and farm equipment	70,052
Metal products	66,833
Publishing, printing	64,709
Broadcasting, motion-picture production and distribution	62,561
Jewelry, silverware	59,227
Textiles, vinyl flooring	58,795
Motor vehicles	57,253
Electronics, appliances	53,158
Office equipment (includes computers)	53,147
Measuring, scientific, photographic equipment	50,174
Furniture	49,340
Apparel	33,372
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.
All industries	**71,121**

ASSETS PER EMPLOYEE

THE TEN HIGHEST

	SALES RANK	
Pogo Producing	746	$3,374,500
Mesa Petroleum	560	2,023,901
Southland Royalty	562	1,178,842
Inexco Oil	918	774,232
Houston Oil & Minerals	541	772,539
Adobe Oil & Gas	893	716,335
OKC	621	525,878
Pauley Petroleum	832	493,355
Howell	657	483,644
Energy Reserves Group	908	458,783

THE FIVE LOWEST

R.G. Barry	990	$16,226
Stanley Home Products	730	16,044
William Carter	846	15,770
Oxford Industries	678	13,501
Bob Evans Farms	997	11,661

THE INDUSTRY MEDIANS

Petroleum refining	$271,130
Mining, crude-oil production	220,006
Broadcasting, motion-picture production and distribution	109,272
Chemicals	74,344
Pharmaceuticals	66,573
Paper, fiber, and wood products	63,291
Soaps, cosmetics	63,122
Beverages	63,072
Food	57,954
Glass, concrete, abrasives, gypsum	57,386
Metal manufacturing	57,310
Office equipment (includes computers)	47,677
Industrial and farm equipment	47,468
Shipbuilding, railroad and transportation equipment	46,135
Metal products	43,421
Rubber, plastic products	43,216
Publishing, printing	42,300
Jewelry, silverware	39,406
Motor vehicles	39,084
Measuring, scientific, photographic equipment	37,636
Musical instruments, toys, sporting goods	36,511
Electronics, appliances	36,306
Furniture	30,756
Textiles, vinyl flooring	27,449
Apparel	21,706
Aerospace	N.A.
Leather	N.A.
Tobacco	N.A.
All industries	**46,209**

THE MONEY LOSERS

	SALES RANK	LOSS
UNC Resources	665	$34,211,000
Fedders	950	28,952,000*
Combustion Equipment Associates	941	23,569,000*
Texfi Industries	928	21,504,000*
Inspiration Consolidated Copper	833	17,629,000
Norlin Industries	812	17,101,000*
Armstrong Rubber	535	16,395,000
Lamson & Sessions	631	15,479,000
Instrument Systems	810	15,093,000
Michigan General	760	13,445,000
Manhattan Industries	572	13,150,000
American Biltrite	777	12,562,000
Arctic Enterprises	815	11,559,000
Bulova Watch	806	8,704,000
Valmac Industries	792	7,988,000
Coachmen Industries	996	7,582,000*
Roblin Industries	981	6,945,000
Champion Home Builders	751	6,824,000
Facet Enterprises	969	6,464,000
Raybestos-Manhattan	667	6,275,000
Talley Industries	539	5,870,000
Ronson	936	5,590,000
Dayton Malleable	977	5,462,000
Bobbie Brooks	767	5,296,000
Clow	834	4,969,000
UNR Industries	616	4,421,000
Munsingwear	975	3,848,000
Bird & Son	603	3,584,000
Keystone Consolidated Industries	540	3,450,000
Puritan Fashions	871	3,441,000
C.H. Masland & Sons	960	3,279,000*
Hayes-Albion	821	2,927,000
Standard Products	753	2,760,000
Commodore	828	2,601,000
Elixir Industries	956	2,466,000
Allied Products	650	2,192,000
TMC Industries	976	2,067,000
Reading Industries	1,000	1,881,000*
Cagle's	836	1,597,000
Compo Industries	993	869,000
Laclede Steel	734	788,000*
Robintech	878	636,000*

*Also lost money in 1979.

Reprints of this year's FORTUNE Directory will be available in September. The directory will include the FORTUNE 500 (from the May 4 issue), the Second 500 (from this issue), and the non-industrial "50 Largest" lists (published July 13). Single copies of the directory reprints are $7 each; 25 to 99 copies, $6 each; 100 or more, $5 each. Please address inquiries and payment to Fortune, Double 500 Directory 1981, P.O. Box 8001, Trenton, N.J. 08650. Payment must accompany order.

ARRIVALS AND DEPARTURES

NEWCOMERS TO THE SECOND 500

	1980 SALES RANK
AVX	939
Adobe Oil & Gas	893
Ag-MET	627
American Microsystems	984
American Welding & Manufacturing	973
Analog Devices	961
Anthony Industries	771
Barry (R.G.)	990
Bob Evans Farms	997
Camco	927
Compo Industries	993
Edgewater	989
Energy Reserves Group	908
FSC	885
Fluke (John) Mfg	986
GCA	848
Galveston-Houston	925
Genesee Brewing	958
Genrad	854
Glenmore Distilleries	962
Hexcel	923
Inexco Oil	918
Jonathan Logan	505
Keystone International	982
LeaRonal	783
Lee Enterprises	972
Mary Kay Cosmetics	856
Metro-Goldwyn-Mayer Film	825
Monarch Machine Tool	983
Moog	963
Nordson	907
Pall	940
Pauley Petroleum	832
Pirelli Cable	901
ROLM	781
Richmond Tank Car	721
Roper	515
Sealaska	951
Spectra-Physics	968
Standard Motor Products	994
Texas American Energy	906
Tokheim	966
Varlen	979
Vernitron	995
Wallace Business Forms	943
Wausau Paper Mills	867

RETURNED TO THE SECOND 500*

	1980 SALES RANK
Arvin Industries (1974: 504)	513
Barnes Group (1978: 515)	509
Butler Manufacturing (1976: 522)	528
Ceco (1978: 525)	508
Garan (1978: 958)	985
Inspiration Consolidated Copper (1974: 962)	833
Keystone Consolidated Industries (1978: 519)	540
Keystone Foods (1978: 679)	551
Mount Vernon Mills (1972: 979)	967
Northwestern Steel & Wire (1978: 506)	516
Nytronics (1970: 966)	902
Royal Crown Companies (1977: 503)	506
Skyline (1977: 519)	596
Stanadyne (1978: 521)	544
Talley Industries (1969: 607)	539
U.S. Sugar (1976: 926)	864

*Figures in parentheses indicate year and sales rank the last time the company was listed.

DEPARTURES FROM THE SECOND 500

	1979 SALES RANK
American Beef Packers	803
Ampex[1]	519
Bally Manufacturing[1]	517
Barber Oil[2]	965
Belden[3]	612
Belding Heminway	989
Buckeye International[4]	841
CMI	996
California Computer Products[5]	925
Chamberlain Manufacturing[5]	718
Checker Motors	874
Chock Full O' Nuts	954
Crouse-Hinds[1]	520
Culbro[6]	512
Danly Machine	994
Dorchester Gas[1]	523
Earth Resources[3]	503
Edgington Oil[3]	619
Electronic Memories & Magnetics	887
Envirodyne Industries	636
Ethan Allen[3]	706
Gifford-Hill[1]	504
Glover	894
Huyck[5]	888
International Flavors & Fragrances[1]	501
Jantzen[3]	919
Kuhlman	934
Kysor Industrial	907
Leesona[5]	821
MacAndrews & Forbes	983
Marlene Industries[5]	932
Marley[1]	596
Measurex	993
Mitchell Energy & Development[1]	635
National Cooperative Refinery Association[1]	534
New England Fish	805
North American Royalties	999
Ohio Ferro-Alloys	972
PVO International[5]	697
Pertec Computer[5]	875
Playboy Enterprises[6]	602
Raychem[1]	547
Riley[3]	664
Rohr Industries[1]	511
Savannah Foods & Industries[1]	563
Seagrave	977
Simpson Industries	966
Standard Alliance Industries	985
Susquehanna	955
Technicon[3]	575
Texas International	767
Todd Shipyards[1]	513
Trinity Industries[1]	632
U and I	772
United Foods	981
Virginia Chemicals[3]	933
Vulcan	891
Wang Laboratories[1]	576
Ward Foods[5]	594
Warner & Swasey[3]	590
Winnebago Industries	730
Wylain[3]	562

[1] Moved up to the First 500.
[2] In liquidation.
[3] Acquired by a company in the First 500.
[4] Acquired by Worthington Industries (rank: 653) April 20, 1980.
[5] Full results are no longer made public.
[6] No longer classified as an industrial.

ALPHABETICAL INDEX OF THE SECOND 500 LARGEST INDUSTRIALS

COMPANY	RANK
ARTRA Group	903
AVX	939
Acme-Cleveland	531
Acton	835
Adobe Oil & Gas	893
Advanced Micro Devices	741
Aegis	916
Affiliated Publications	768
Ag-MET	627
Alabama By-Products	717
Alaska Interstate	557
Albany International	563
Alberto-Culver	732
Allegheny Beverage	946
Allen Group	583
Allied Products	650
Alton Packaging	595
Amalgamated Sugar	578
Amdahl	542
Amerace	605
American Biltrite	777
American Business Products	813
American Crystal Sugar	610
American Greetings	520
American Maize-Products	521
American Microsystems	984
American Ship Building	818
American Sterilizer	754
American Welding & Manufacturing	973
Ameron	647
Ametek	537
Ampco-Pittsburgh	512
Analog Devices	961
Angelica	863
Anta	874
Anthony Industries	771
Applied Power	811
Arctic Enterprises	815
Armstrong Rubber	535
Arvin Industries	513
Associated Coca-Cola Bottling	622
Athlone Industries	658
Augat	881
Automatic Switch	912
Avondale Mills	623
Baldor Electric	920
Bandag	600
Banta (George)	877
Barber-Greene	740
Bard (C.R.)	680
Barnes Group	509
Barry (R.G.)	990
Bassett Furniture Industries	674
Beker Industries	642
Betz Laboratories	756
Beverage Management	932
Bibb	677
Bic Pen	798
Binks Manufacturing	959
Bird & Son	603
Blair (John)	745
Bliss & Laughlin Industries	692
Block Drug	857
Blue Chip Stamps	762
Bob Evans Farms	997
Bobbie Brooks	767
Bohemia	803
Brown-Forman Distillers	518
Brown & Sharpe Manufacturing	738
Brunswick Pulp & Paper	776
Brush Wellman	805
Bulova Watch	806
Bundy	895
Burndy	700
Butler Manufacturing	528
CCI	691
CHB Foods	673
CTS	809
Cadence Industries	980
Cagle's	836
California Portland Cement	769
Camco	927
Carlisle	548
Carter (William)	846
Carter-Wallace	764
Ceco	508
Centronics Data Computer	988
Champion Home Builders	751
Chelsea Industries	731
Chesapeake Corp. of Virginia	690
Chickasha Cotton Oil	999
Cleveland-Cliffs Iron	555
Clow	834
Coachmen Industries	996
Coca-Cola Bottling Co. of Miami	935
Coleco Industries	869
Coleman	636
Combustion Equipment Associates	941
Commerce Clearing House	695
Commercial Shearing	728
Commodore	828
Compo Industries	993
Compugraphic	664
Computervision	742
Condec	666
Conrac	917
Conrock	992
Continental Copper & Steel Industries	800
Conwood	873
Cooper Laboratories	841
Cooper Tire & Rubber	609
Copeland	561
Core Industries	888
Courier	953
Cox Broadcasting	601
Criton	784
Crompton	872
Crompton & Knowles	715
Cronus Industries	875
Cross & Trecker	570
Crystal Oil	688
Cubic	790
Curtiss-Wright	543
DHJ Industries	820
Dairylea Cooperative	525
Daniel Industries	887
Datapoint	615
Dataproducts	827
Dayton Malleable	977
Deluxe Check Printers	514
Dentsply International	693
DeSoto	591
Dibrell Brothers	607
Diebold	585
Dinner Bell Foods	696
Dixie Yarns	750
Donaldson	727
Dr Pepper	598
Duplex Products	786
Duriron	942
Dynamics Corp. of America	926
Dyneer	889
E-Systems	501
Early California Industries	840
Easco	569
Eastmet	668
Echlin Manufacturing	634
Edgewater	989
Elcor	778
Elixir Industries	956
Energy Reserves Group	908
Essex Chemical	900
Esterline	710
Everest & Jennings International	924
FSC	885
Faberge	709
Facet Enterprises	969
Fansteel	705
Farmer Bros.	852
Fedders	950
Federal Signal	919
Filmways	724
First Mississippi	711
Fischer & Porter	816
Florida Rock Industries	817
Florida Steel	652
Flowers Industries	567
Fluke (John) Mfg.	986
Fort Howard Paper	538
Four-Phase Systems	787
Franklin Electric	886
Franklin Mint	566
Fuller (H.B.)	639
GCA	848
GF Business Equipment	853
Galveston-Houston	925
Garan	985
Gates Learjet	576
General American Oil Co. of Texas	726
General Binding	944
General Portland	619
Genesee Brewing	958
GenRad	854
Georgia Kraft	559
Geosource	503
Giddings & Lewis	602
Glatfelter (P.H.)	684
Gleason Works	713
Glenmore Distilleries	962
Goulds Pumps	718
Graniteville	588
Great Lakes Chemical	991
Greif Bros.	654
Grolier	618
Grow Group	737
Guardian Industries	637
Guilford Mills	712
Gulton Industries	897
Halstead Industries	789
Hanna Mining	597
Harper & Row	855
Harte-Hanks Communications	633
Harvey Hubbell	530
Hasbro Industries	974
Hayes-Albion	821
Hazeltine	971
Helene Curtis Industries	930
Herman Miller	735
Hesston	716
Hexcel	923
Hillenbrand Industries	604
Holly	524
Holly Sugar	780
Homestake Mining	632
Hon Industries	775
Houghton Mifflin	866
Houston Oil & Minerals	541
Howell	657
Huffy	722
Ideal Toy	876
Illini Beef Packers	628
Illinois Tool Works	534
Imperial Sugar	655
Inexco Oil	918
Inspiration Consolidated Copper	833
Instrument Systems	810
International Banknote	748
International Rectifier	904
Interpace	575
Intersil	859
Iroquois Brands	913
Itek	571
James River Corp. of Virginia	558
Jonathan Logan	505
Joslyn Mfg. & Supply	772
Jostens	644
Justin Industries	785
KDI	823
Kaiser Cement	729
Katy Industries	646
Keene	761
Keller Industries	819
Kennametal	606
Kerr Glass Manufacturing	536
Keystone Consolidated Industries	540
Keystone Foods	551
Keystone International	982
Kimball International	752
King-Seeley Thermos	679
Kirsch	844
Knudsen	523
Kollmorgen	802
Krueger (W.A.)	838
Laclede Steel	734
Lamson & Sessions	631
Lancaster Colony	648

Most of the figures in this FORTUNE *Second 500 Directory were prepared by reporter Brian O'Reilly, who is responsible for the columns reporting on companies' sales, assets, net income, stockholders' equity, employees, net income as a proportion of sales and of stockholders' equity, and the industry code numbers. Figures on earnings per share and total return to investors were prepared by Claudine Knight.*

Lance	708
Lane	845
La-Z-Boy Chair	879
LeaRonal	783
Lee Enterprises	972
Leggett & Platt	736
Lehigh Valley Industries	998
Lenox	714
Leslie Fay	793
Liquid Air	526
Loctite	782
Longview Fibre	568
Loral	896
Ludlow	702
Lukens Steel	556
M/A-Com	611
MEI	577
Macmillan Ring-Free Oil	795
Mallinckrodt	502
Management Assistance	626
Manhattan Industries	572
Manitowoc	663
Marion	608
Marion Laboratories	955
Mark Controls	683
Mary Kay Cosmetics	856
Masland (C.H.) & Sons	960
Maytag	580
McNeil	744
McQuay-Perfex	743
Medalist Industries	934
Medford	933
Media General	599
Medtronic	671
Meredith	582
Mesa Petroleum	560
Metro-Goldwin-Mayer Film	825
Michigan General	760
Midland Glass	851
Millipore	681
Milton Bradley	519
Mine Safety Appliances	629
Mirro	915
Mississippi Chemical	587
Modine Manufacturing	779
Mohawk Data Sciences	757
Mohawk Rubber	826
Monarch Machine Tool	983
Monogram Industries	670
Moog	963
Mount Vernon Mills	967
Multimedia	868
Munsingwear	975
Murray Ohio Manufacturing	645
NCH	612
NIBCO	808
National Grape Co-Operative Association	719
National Mine Service	987
National-Standard	617
Newell Companies	947
Nordson	907
Nortin Industries	812
Nortek	931
North American Coal	504
Northwestern Steel & Wire	516

Noxell	770
Nytronics	902
OKC	621
Oak Industries	547
Ocean Spray Cranberries	733
Oglebay Norton	842
Olympia Brewing	593
Omark Industries	703
Oneida	630
Overhead Door	725
Oxford Industries	678
Pacific Lumber	649
Pall	940
Palm Beach	527
Pantasote	910
Papercraft	914
Park-Ohio Industries	807
Pauley Petroleum	832
Penn-Dixie Industries	624
Pentair	758
Petrolite	699
Pettibone	573
Philips Industries	687
Phillips-Van Heusen	549
Phoenix Steel	837
Pierce (S.S.)	669
Pirelli Cable	901
Pittsburgh-Des Moines	564
Pittway	625
Pogo Producing	746
Polychrome	860
Pope & Talbot	759
Portec	706
Prentice-Hall	574
Prime Computer	676
Publicker Industries	965
Puritan Fashions	871
Quanex	686
RKO General	640
ROLM	781
RSR	890
RTE	766
Ranco	829
Rath Packing	517
Raybestos-Manhattan	667
Reading Industries	1,000
Redman Industries	661
Reeves Brothers	613
Reliance Universal	804
Republic	635
Research-Cottrell	552
Rexham	850
Richardson	884
Richmond Tank Car	721
Riegel Textile	510
Robbins & Myers	794
Robertshaw Controls	581
Robins (A.H.)	511
Robintech	878
Roblin Industries	981
Rochester & Pittsburgh Coal	747
Ronson	936
Roper	515
Rorer Group	620

Royal Crown Companies	506
Rubbermaid	594
Russ Togs	831
Russell	720
Russell Burdsall & Ward	892
Russell Stover Candies	949
SFN Companies	697
SPS Technologies	589
Salant	660
Salem Carpet Mills	847
Sanders Associates	659
Schaefer (F.&M.)	822
Scherer (R.P.)	922
Scholastic	952
Scientific-Atlanta	799
Seaboard Allied Milling	529
Sealaska	951
Sealed Power	689
Shaklee	522
Shaw Industries	755
Simmonds Precision Products	945
Skyline	596
Smithfield Foods	801
Smucker (J.M.)	905
Snap-on Tools	533
Soundesign	948
Southdown	694
Southland Royalty	562
Spectra-Physics	968
Stanadyne	544
Standard-Coosa-Thatcher	909
Standard Motor Products	994
Standard Products	753
Standard Register	651
Standex International	584
Stanley Home Products	730
Sta-Rite Industries	921
Stepan Chemical	880
Sterndent	749
Stewart & Stevenson Services	675
Stewart-Warner	592
Stone Container	554
Storer Broadcasting	788
Stride Rite	862
Sullair	891
Sun Electric	773
Swank	954
TMC Industries	976
Taft Broadcasting	723
Talley Industries	539
Tampax	774
Tappan	656
Tasty Baking	830
Technicolor	796
Telex	882
Teradyne	865
Terra Chemicals International	638
Texas American Energy	906
Texas Industries	662

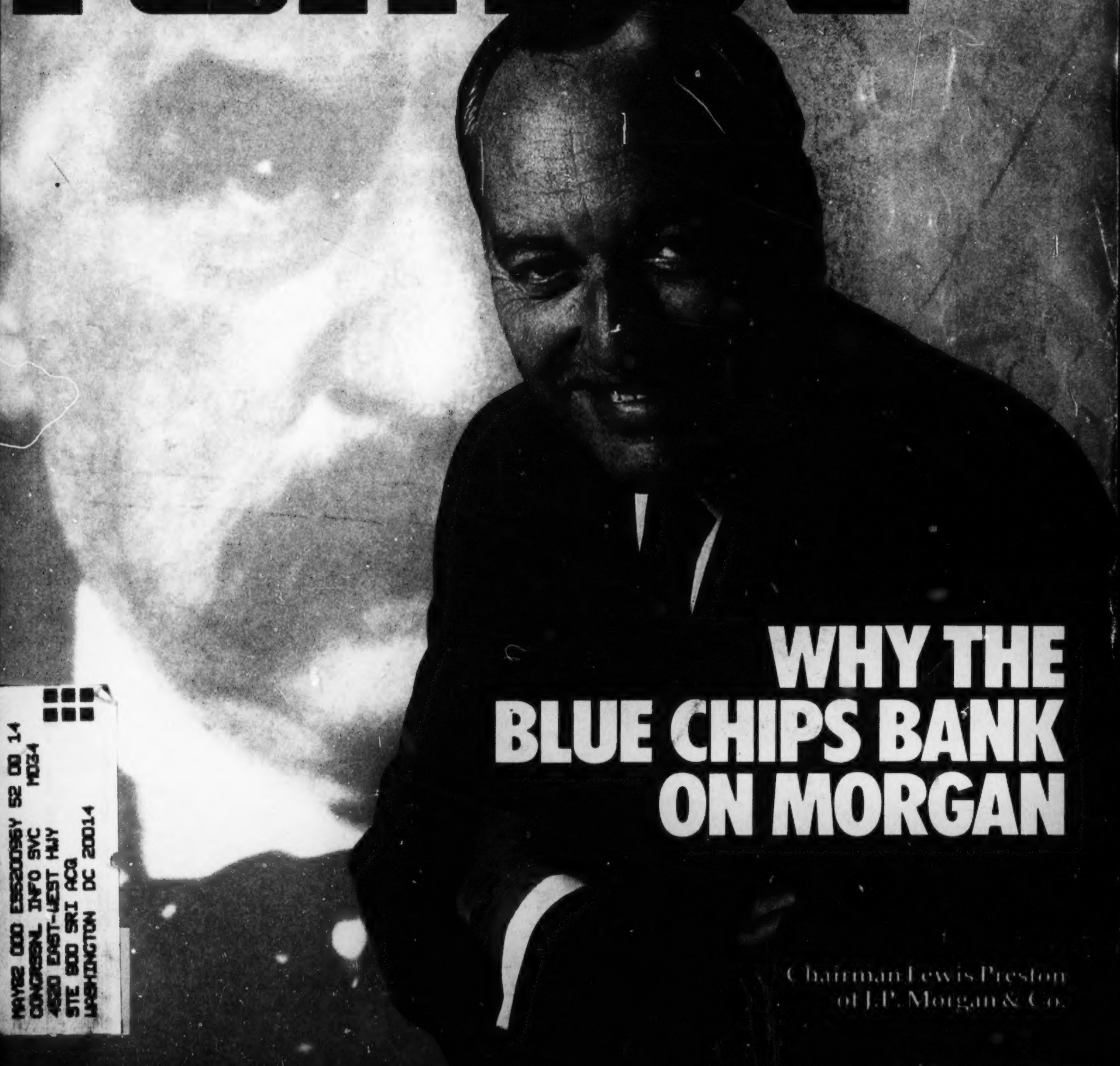
Texfi Industries	928
Thermo Electron	839
Thomas & Betts	698
Thomas Industries	739
Ti-Caro	704
Titanium Metals Corp. of America	507
Tokheim	966
Tonka	929
Toro	532
Towle Manufacturing	861
Tracor	643
Transamerica Delaval	553
Triangle Industries	641
Triangle Pacific	765
Tultex	824
Twin Disc	763
Tyco Laboratories	614
Tyson Foods	546
UMC Industries	565
UNC Resources	665
UNR Industries	616
Unifi	937
Union	791
Union Special	964
United Industrial	849
U.S. Sugar	864
U.S. Tobacco	682
Universal Foods	550
VSI	545
Valley Industries	858
Valmac Industries	792
Valmont Industries	898
Valspar	957
Van Dorn	843
Varlen	979
Vermont American	814
Vernitron	995
Walco National	938
Wallace Business Forms	943
Warner Electric Brake & Clutch	899
Watkins-Johnson	978
Wausau Paper Mills	867
Wean United	685
West	911
Western Gear	672
Western Pacific Industries	707
Williamhouse-Regency	883
Wisconsin Dairies Cooperative	586
Wolverine World Wide	701
Wometco Enterprises	579
Woodward Governor	970
Work Wear	870
Worthington Industries	653
Wynn's International	797
Xcor International	894
Zurn Industries	590

Fortune's Forecast for the Next 18 Months
The Unwinnable War on Insider Trading
Carl Lindner's Disappearing Act

7/5/81 C 8900-1

$2.50 July 13, 1981

FORTUNE



WHY THE BLUE CHIPS BANK ON MORGAN

Chairman Lewis Preston
of J.P. Morgan & Co.

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CONGRSSNL INFO SVC MD34
4520 EAST-WEST HWY
STE 800 SRI ACQ
WASHINGTON DC 20014

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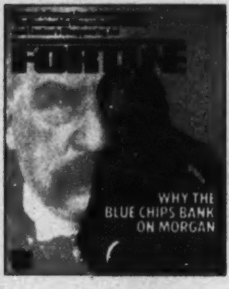

Edward Steichen's famous 1903 portrait of J. Pierpont Morgan makes a dramatic backdrop for Georgiana Silk's cover photograph of Lewis T. Preston, chairman of Morgan Guaranty Trust Co. A story on the distinguished Wall Street bank begins on page 36.

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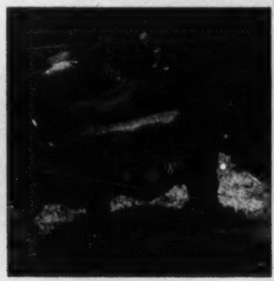

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Summer doldrums, then a brisk upswing

ACKNOWLEDGMENTS

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THE NEXT 18 MONTHS

A Brisk Upswing in 1982

Business activity is going through a brief spell of weakness now but will finish next year on a respectable upswing. By the end of 1982, real GNP should be rising at a 4% annual rate. A good bit of that zip will come from the large personal-tax cuts expected this year and next. Though a positive force for the economy in the near term, those cuts will contribute to a large federal deficit by late 1982. Given the Fed's determination to keep a tight grip on money and credit, the deficit combined with a projected speedup of business and consumer buying could well produce financial strains as the economy enters 1983.

In the quarter just ending, real GNP finally ran out of steam after a surprising burst of exuberance. When all the numbers and revisions are in, the second quarter will go down in the books as a loser, and the economy may ease a little more during the summer. Inflation did come thudding down in the second quarter—to a 6% to 7% rate of rise in GNP prices after 10% in the first quarter—but now it will move part way back up again.

Most of the unexpected strength in the economy since the recession low last spring came in consumer buying and housing. One reason consumers surprised the forecasters was because savings rates last year were much higher than Commerce first reported. That meant consumers were not as hard-pressed for money as they had appeared. Housing held up a lot better than expected because interest rates did not have the bite that had been assumed—buyers had got hardened to high rates. Now the string of unsuspected strengths has run out. After spending so much that their savings rate (as now reported) has declined well below normal, consumers are retrenching. And housing has finally buckled.

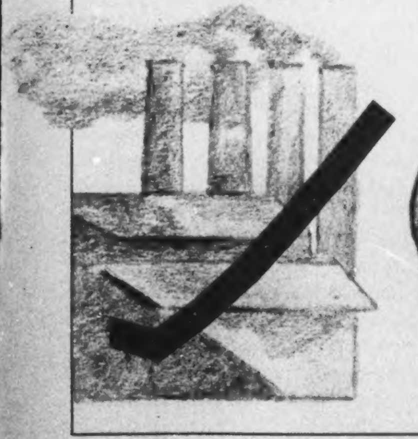
By autumn, the economy should begin to climb again. A tax cut should be making life easier for consumers, and interest rates should be lower. This will set the stage for real GNP to grow at a 3% annual rate in the first half of 1982 and a 4% rate in the second half. On a year-to-year basis, real GNP will be up 2.1% in 1981 and 2.4% in 1982.

The importance of savings

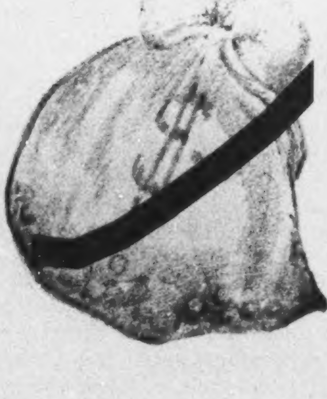
Consumers will power most of the increase in the next six quarters. How much they will save out of the tax relief in coming years is a matter of considerable theoretical and political controversy. It is generally agreed, though, that they will initially stash away a large part of it. Since two tax cuts seem slated in short succession (October and July), savings are likely to increase later this year and in 1982. Should savings not get back up to the normal range of 6% to 7%, the burst in spending in the second half of next year could unbalance the economy, creating financial stress that could weaken housing, capital goods, and other sectors.

As it is, prospects in housing are not all that cheerful. After slipping this spring, starts should begin rising in the autumn. But the upswing is not likely to carry beyond a 1.6-million-unit rate by the end of 1982, a far cry from the two million in 1977 and 1978. Pent-up demand is there for at least two million, but mortgage rates are not likely to fall enough and the supply of funds is not likely to grow enough for prospective home buyers to vent their desires.

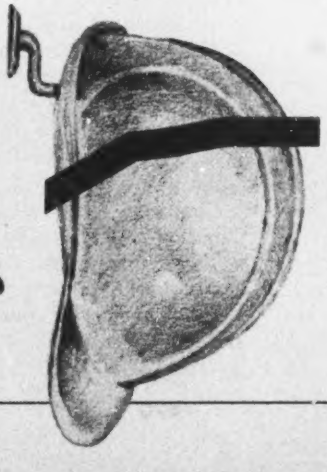
Business purchases of plant and equipment dipped in the spring from the fillip in the winter and may be leveling out now before a moderate upturn next year. Since capacity utilization is likely to decline for a while and return to only about present levels by the end of 1982, businessmen will not have much incentive to add capacity faster than they are doing now. In addition, capital spending is high relative to corporate cash flows, so business is currently hard pressed to speed



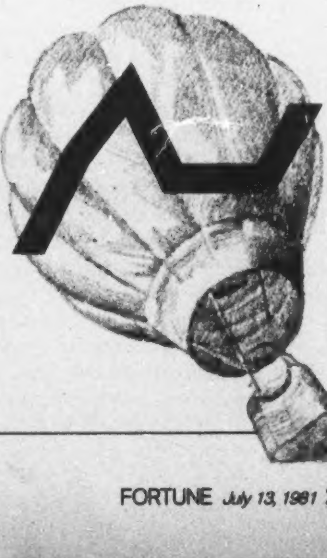
REAL GROWTH
will hit a 4% rate next year.



OPERATING PROFITS
will climb with sales.



UNEMPLOYMENT
will edge over 8%.



GNP PRICES
will rise 8% in 1982.

up modernization expenditures. Capital spending should pick up a bit as liberalized depreciation allowances make room for additional outlays next year.

Industrial production will probably grow a bit faster than real GNP next year—largely because most of the speedup in consumer spending will come in goods rather than in the less volatile services. Inventory/sales ratios bumped up in the second quarter as final sales dropped, but should be falling later as sales take off again. Indeed, the inventory/sales ratio may reach the lowest level since 1973, when stocks were so tight that business went on a buying binge. Buying is not likely to surge this time because financing costs will remain high and corporations have periodically been caught with too much stock on hand as sales have followed an unpredictable saw-toothed path. So inventory buying will add only a modest boost to output.

Creeping unemployment

Despite the economic improvement over the next 18 months, unemployment will finish 1982 higher than at any time since 1975. That will be only slightly worse than now but hardly an auspicious level for Congressmen seeking election next year. For the past year, unemployment has been bobbing around 7.5% and later this year should go up to 8%. FORTUNE assumes that nonfarm productivity will start increasing regularly for the first time in years and grow about 2% in 1982. Combined with the normal expansion of the labor force, this will offset the rise of output next year, so unemployment should hold at around 8% or rise a little.

Inflation should moderate from last year's levels in the next 18 months but won't remain as low as in the second quarter. After a temporary drop in hog and beef prices, which held food costs virtually level in recent months, meat prices are headed up again. Over the next year and a half, total consumer food prices are likely to increase close to 10% annually.

Oil prices, which have also been a lot weaker than the experts had expected, are likely to turn up sometime next year. Saudi Arabia has maintained production at 10.5 million barrels a day longer than had been assumed, but is still expected to cut back by a million or so later this year and perhaps that much more next year. Meanwhile, demand will pick up. The combination should eliminate much of the current oil glut, stabilizing prices in the autumn and probably pushing them up with general inflation next year.

A climb in oil prices will be more than offset by slower price increases in other goods and services. High unemployment will trim wage demands, and improving productivity will absorb some of the compensation increases that do come about. All together, then, GNP prices should be going up at an 8.5% rate in the second half of this year and somewhat less than that during 1982.

This fairly heartening outlook for inflation and business activity is darkened by the prospects for the federal budget. Contrary to the Administration's plan and the congressional budget resolution, the deficit looks as if it will be running at a $70-billion rate (on the national income accounting) by the end of 1982, compared with the $45-billion rate recorded in the first half of this year. This assumes that the President gets his tax cuts this year and next, in magnitude and timing if not in detail, and that spending runs close to what he has programmed, with nondefense spending a few billion higher and with defense spending a few billion lower than planned. The big bulge in the deficit will be brought about by a shortfall in revenues: the economy won't be expanding enough to generate the tax receipts Congress and the Administration optimistically assumed.

Chairman Paul Volcker of the Federal Reserve Board has said monetary policy will be tight regardless of the deficit's size. Expansion of money and credit at the top of the Fed's range should not cause any burden for the financial markets this year, permitting moderate decreases in interest rates over the next few months. In 1982, however, the Fed plans to slow the growth of the aggregates, and with the economy warming up and the deficit ballooning, monetary policy will begin to take its toll. In fact, on FORTUNE's projections, money will be tight even if the Fed doesn't push down money growth rates. Despite the slowing of inflation, interest rates are likely to be on an upward trend next year, with the possibility of big increases by 1983. Meanwhile, the economy over the next 18 months will be responding as outlined below:

■ GOVERNMENT. The federal deficit will widen to about $58 billion for fiscal 1982, up from $52 billion estimated for this year. What's worse, it will be running at a $70-billion rate going into the next fiscal year.

Defense purchases in real terms have climbed at a 3.7% annual rate over the past six quarters. That will accelerate to better than 5% now, and President Reagan plans an even faster buildup later. Outlays for everything other than defense will drop 6% during the next 18 months.

Grants to state and local governments, for example, which are already down 9%, will sink 20% more by the end of 1982. By keeping expenditures unchanged and working off past surpluses, states and localities have weathered their own round of tax cutting. Now deficits are beginning to reappear even though taxes are on the rise and the governments are holding down services.

■ CREDIT. Assuming the broad money supply and bank credit continue growing at the top of the Fed's target range, pressures on interest rates should subside over the summer. As the economy recovers, though, pressures should build again. The ratio of nominal GNP to either bank credit or M2 has shrunk from the unprecedented levels in the first quarter. But the climb of nominal GNP will pull up this ratio, which economists call velocity, to new highs next year, even if the Fed does not reduce its monetary-growth targets as it has announced it will. With all the changes taking place in financial institutions, velocity may be able to rise a bit without a run-up of interest rates. But it will be high enough by the end of next year that further increases would surely risk a financial bind.

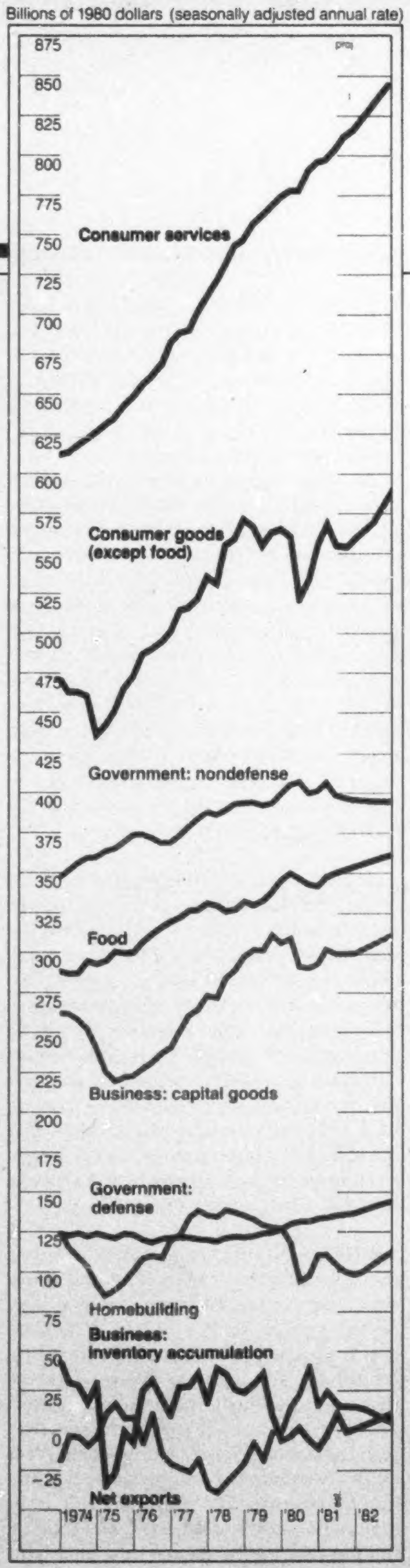
After dropping a few points from the May peaks for the next few months, interest rates should start turning around by the end of this year and keep going up next. The fall in inflation may have lowered inflationary expectations, which should moderate the rise. So in 1982 there is a good chance that rates, particularly long-term ones, won't go all the way back to last winter's peaks.

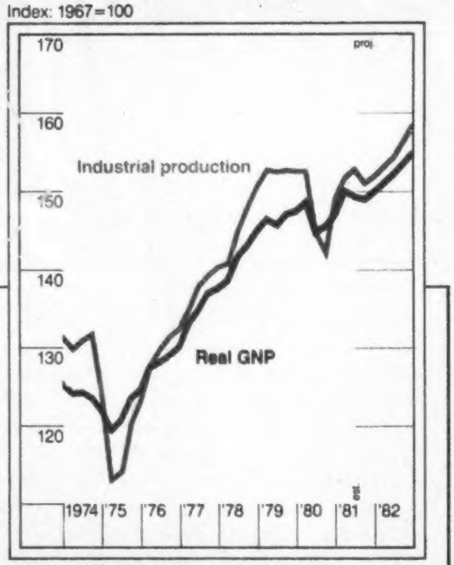
■ **PRICES, WAGES, AND PROFITS.** The breather inflation took in the second quarter won't be repeated anytime soon, but there has been some improvement in basic prospects for prices. Though total hourly compensation will increase about the same 10% this year as last, it should get down to the 9% range in 1982. Given the heavy bargaining calendar for union workers, wages should climb almost as fast as in the past even though cost-of-living adjustments will be somewhat smaller. Fringe benefits will taper off, however, largely because the next scheduled hike in Social Security taxes will be small. By the second half of next year, the rise in output should finally bring with it a sustainable 2% rate of gain in productivity, which will help hold down the rise of unit labor costs.

The GNP deflator will average an 8.6% increase this year, down more than a per-

The Course of GNP by Sectors

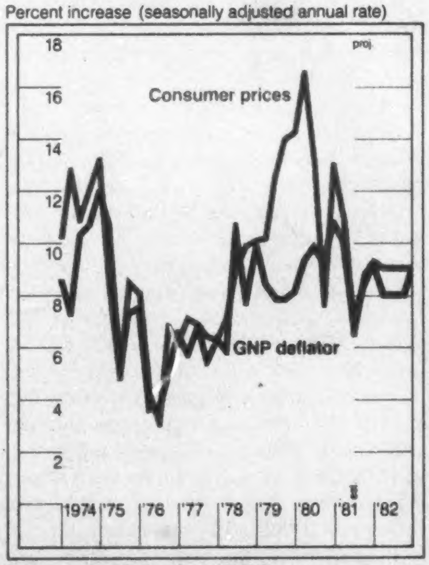
Housing, defense, and inventories will contribute to the uplift in business this year and next, but consumer spending, particularly for goods, should provide the main thrust. Net exports and government's nondefense outlays (including state and local) are likely to ease.





Up with Output

Industrial production, which has been buoyed by an inventory buildup, will ease in the summer as stock buying subsides. In the autumn and next year it will climb with final sales and inventory accumulation. GNP, which includes services as well as goods, is sputtering now but will gather steam as the economy moves toward year-end and into 1982.



Down with the CPI

Both the popular CPI and the broader GNP deflator fell back to a 6.5% to 7% rate of increase during the spring. The rate for the CPI is likely to bounce back above a 9% clip next year, while the GNP deflator will run around 8%—both significant improvements over the last year and a half. Federal pay raises will push up the deflator at year-end.

Fortune Forecast *continued*

centage point from 1980. Next year the rate will fall only 0.5% or so. The consumer price index, with its greater sensitivity to oil and food prices, will slow more dramatically this year, to around 9%, but will hold to that rate in 1982.

Corporate profits took a drubbing last quarter and low capacity utilization will continue to squeeze margins. Operating profits, which are calculated on the basis of straight-line depreciation, will expand with sales. But book profits, which will reflect larger deductions for accelerated depreciation allowances included in the Reagan program, will barely match the first quarter's peak as next year ends. Efforts to increase margins could endanger the chances for a better inflation performance further down the road.

■ CONSUMERS. After-tax incomes should climb briskly over the period ahead—4% a year in real terms compared with a 1% rate in the past year and a half. During the spring, consumers raised their savings rate from 4.7% to 5.1% despite meager growth in income. With fatter paychecks, they will probably push the rate up to 6% or better by the end of 1982. But this will still leave room for a handsome 3.5% rate of growth in spending.

Food sales will continue to advance modestly and services will speed up slightly. Goods purchases, which fell in the spring, will enjoy the biggest benefit of the consumer's largess—climbing 4% a year. By next summer goods buying will finally pass the old peak registered in 1978. Car sales will improve from about eight million a year now to around ten million in 1982, still well below the 11 million-plus of the past decade's best years. Clothing will continue doing well, and as housing starts and incomes perk up, home goods will hit new records.

■ CAPITAL GOODS. Business reduced real outlays for plant and equipment last quarter after a six-month spurt. Spending will hold steady until early next year, mainly because capacity utilization won't rise until then. Capital stock grew more than 3.5% annually over the last few years, so even the fast pace of the economy in the first quarter left utilization 5% below its 1978 peak. Operating rates will fall a couple of more points by year-end, to the lowest level in 6½ years.

As utilization picks up in 1982, investment in capital goods will begin to shake off the doldrums, but no boom is in sight. An increase of 3.5% in outlays next year would still leave capital stock expanding at 3% a year—about the rate needed for longer-run economic growth. Tax cuts will be needed for even that much capital spending. Internally generated funds have lagged badly behind outlays for much of the last four years and profit gains from operations will be hard to come by in the next few quarters. Reagan's faster depreciation proposal would add a much needed $9 billion to cash flow next year.

■ INVENTORIES. Stocks piled up at car dealers in the spring; other businesses held inventories fairly steady despite the drop in final sales. With sales expected to climb at a 4% clip in 1982 after going nowhere on balance since 1978, businesses will build inventories intentionally for the first time in a couple of years. Still, the accumulation should be moderate, allowing the overall inventory/sales ratio to slide back to historically low levels. While that could lead to a buying surge, businessmen have been trying so hard to keep stocks lean that a surge doesn't seem likely.

■ HOUSING. Housing starts dropped to 1.15 million a year in May and could sink a bit further. Mortgage rates are expected to ease only a little and lenders will continue to have trouble competing for funds. Although the heavy flight of savings from thrift institutions is probably over for now, it is hard to see a return to sizable inflows anytime soon. With all the constraints, housing starts will begin to increase this summer, but only gradually. They should accelerate to a 1.6 million rate by the end of next year, still far below the long-run need for shelter.

Home construction, which lags starts, peaked in the first quarter and dropped 6% in the spring. It will continue to fall for the rest of the year, albeit not so sharply, before turning up in 1982.

■ NET EXPORTS. The long improvement in U.S. foreign trade is now over. Merchandise exports have slowed and will barely rise from now on. Farmers are likely to boost grain exports but not enough to offset the slowdown in industrial goods. The volume of these goods grew only 5% in the last year and a half—a paltry increase compared with the couple of years before that. Our foreign customers are continuing to have economic troubles, and the strong dollar makes our exports expensive for them. So by the end of 1982, shipments of industrial goods abroad will be running only 1% to 2% ahead of the recent pace.

Imports of merchandise, on the other hand, are headed up. After a drop in mid-1980, the volume of industrial and consumer products entering U.S. ports is running at about the same pace as at the end of 1979. They will speed up with the domestic economy next year.

The volume of oil imports dropped a dramatic 25% during the past six quarters, so the total cost of foreign oil rose only 14% despite soaring prices. The volume will edge up again, probably about 5% by the end of next year. If price increases just match world inflation, as seems likely, the total oil bill will rise some 15%.

For a few quarters the U.S. ran a surplus on its overall current accounts, which in addition to the merchandise trade include services and many financial transactions. The current account deficit reappearing now could grow to as much as $10 billion next year. But that's not enough to put serious pressure on the dollar.

CHIEF ECONOMIST Todd May Jr.
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RESEARCH ASSOCIATES Catherine Comes Haight, Lenore Schiff

THE FORTUNE DIRECTORY OF THE LARGEST NON-INDUSTRIAL COMPANIES

The 50s

by ANNE B. PILLSBURY

Savaged by recession and inflation, the 300 non-industrial companies on FORTUNE's six "50 largest" lists put on a distinctly subpar performance last year. Like the 1,000 largest industrials, they were battered in the second quarter by the steepest single-quarter economic decline in the postwar years. Like the industrials, they tended to show broad reductions in real earnings. The year's 13.5% inflation rate, as measured by the consumer price index—the index that the Financial Accounting Standards Board prescribes for companies reporting inflation-adjusted data—was far higher than the 6% earnings growth of the five non-industrial groups that report earnings. (The life-insurance group doesn't.) Both the retailing and diversified-financial groups showed earnings declines even in current-dollar terms.

Not surprisingly, investors in non-industrial securities didn't fare too well. The median total return (stock appreciation plus dividend yield) for the 236 companies whose stock is actively traded was only 12.06%, vs. 21.05% for the 500 largest industrials and 21.57% for the Second 500. Total return was actually negative for 54 of the non-industrial companies.

COMMERCIAL BANKING

Largely because of uneven loan demand, the 50 largest commercial-banking companies showed a modest 10% gain in assets last year—about half the 1979 increase. Citicorp, whose assets rose only by 8%, nevertheless pushed its way to the head of the list, passing BankAmerica Corp. for the first time. However, Citicorp's profits declined by nearly 8%, and BankAmerica, which has occasionally been second to Citicorp in profits, was first last year. Earnings for the 50 as a group were up only 6%—the smallest gain since 1976. In fact, 16 companies on the list reported net income lower than in 1979, and one—First Pennsylvania Corp.—took a horrendous $145-million loss and tumbled 16 places on the list, to No. 42. (See "The Bet that Almost Broke a Bank," FORTUNE, June 2, 1980.)

The biggest success story of the year was registered by Republic New York Corp. The company joined the list in 1979 in the No. 49 spot, and has now rocketed up to No. 31 in the ranking. The bank's assets consist to an unusual extent of interest-sensitive securities (as opposed to loans), and last year's high interest rates contributed to an earnings gain of 83%. Earnings were also raised by increased income from precious-metal trading—one of the bank's specialties. Assets were boosted by the acquisition of 12 branches from Bankers Trust New York Corp. (No. 8). Republic's total return to investors, at 144%, was by far the highest of any of the 50.

LIFE INSURANCE

Life insurance in force increased by 10.6% for the top 50 life-insurance companies, and was approaching $2.5 trillion at year-end. The companies' assets grew by 10.3%. But premium and annuity receipts for 1980 rose only by 4.3%: policyholders continued to switch from cash-value whole life to less expensive term insurance, and the carriers found themselves competing to offer ever lower prices on life coverage of all kinds. Although net gains from operations increased by 12% in the aggregate, 23 of the 50 showed lower gains than in 1979.

Despite last year's high interest rates, net investment income of the 50 rose only 11.6%. It was held down, first, the fact that the companies' assets are t ically committed long term, and can be redirected in periods when rates r Second, many companies were hurt the increasing tendency of policyhold to borrow against coverage—taking vantage of interest rates statutorily fi in the 5% to 8% range. The borrowi drained off funds that would have b available for more attractive investme Finally, the industry was hurt by the I Insurance Company Income Tax Act 1959. The act provides that when inter rates on investment income get over 1 the tax rates on such income beco steeply progressive.

The company that had the best year around was IDS Life, which moved seven places to No. 41. Its assets grew 34%, and its premium and annuity ceipts (up 46%) and net investment come (up 48%) both led the list.

DIVERSIFIED FINANCIAL

Although brokerage firms and c sumer-credit companies had a reasona good year, 1980 was the bleakest in cent history for the country's savings loan associations, 14 of which are r resented on the diversified-financial Deregulation led to the elimination Regulation Q interest-rate ceilings some 50% of all S&L deposits, and the dustry found itself paying 15% or m on money-market certificates while ea ing less than 10% on most of its m gages. The five sharpest profit decli were reported by the five smallest S& and the largest single loss on the list suffered by a large S&L, Gibraltar Fin cial Corp. of California (No. 24).

SEARS
UNITED

In all, 27 of the 50 showed decreases in net income from 1979, with several earnings drops also reported by property and casualty insurers, whose traditionally cyclical business was in a down phase (expected to last through 1981). The total-return figures for the 50 ranged all over the lot, with 15 negative results and some highly positive returns for the brokers, led by Shearson Loeb Rhoades (260.64%) and E.F. Hutton (198.45%). Shearson (No. 43) has recently merged with American Express (No. 4).

The assets of the 50 companies rose by 32.3% over 1979, to nearly $365 billion—of which $58.5 billion belonged to the Federal National Mortgage Association, now No. 1. Long considered a quasi-governmental agency, and therefore excluded from the list, Fannie Mae has been placed on it after a broad review of the status of a number of such enterprises, and especially of the extent to which they were profit seekers. (For more on Fannie Mae, see page 110.) Another newcomer, City Federal Savings & Loan Association (No. 41), became eligible when it went public last June.

RETAILERS

Total sales of the 50 largest retailing companies sailed past the $200-billion mark in 1980, a 14.4% increase over 1979. Earnings, however, were down for 17 of the 50 and for the group as a whole, and three companies recorded losses. Top-ranked Sears saw an earnings drop of 25% despite a 44% jump in sales.

The poor earnings results were heavily influenced by a sequence of events last spring: after the credit crunch in March, sales slowed dramatically, and retailers were left with unusually high levels of inventory—just in time for the steep second-quarter recession. The retailers' median margin fell from 2.2% in 1979 to 2.0%. Margins were hammered down by the federally mandated hike in the minimum wage and the cost of borrowing to finance inventory.

Investors in a few of the companies nevertheless made out rather well. Total return at Wal-Mart Stores was 75% and at Zayre it was 98%. But the best retailing stock to have owned in 1980 was Tandy (No. 39), the Radio Shack company: it returned 216% to its investors.

Two familiar names have been added to this year's list. Marshall Field (No. 50) rejoins the top 50 after a six-year absence. And Holiday Inns (No. 36) appears for the first time—gaining on a major competitor, Marriott Corp. (No. 32). Both companies qualify as retailers because more than half of their revenues come from food sales.

TRANSPORTATION

All things considered, 1980 was a bad year to be a large transportation company. Aggregate operating revenues for the 50 largest rose by 22% over 1979. But of the dozen passenger airlines on the list, six reported net losses and another, Northwest Airlines, had an earnings decline of 90%. The recession weakened demand for air travel, rising fuel costs hurt badly, and the competitive environment under deregulation had many carriers slashing fares.

Common-carrier motor-freight companies traveled an equally rough road. With entry into their business made easier by the Interstate Commerce Commission, competition led to widespread rate cutting. Five of the trucking companies in the top 50 took losses and—together with the six red-ink airlines and the Chicago, Milwaukee, St. Paul & Pacific Railroad—brought the total number of losers on the list to 12.

Among the scattered successes: Chicago & North Western Transportation (No. 28). The railroad company hiked earnings 930% over 1979, and total return to investors was a spectacular 352%.

UTILITIES

The inflation-fueled difficulties of the utilities industry, functioning under heavy regulation, were reflected in the figures reported by the 50 largest. Their aggregate operating revenues rose 18%, the highest percentage increase since 1974. But net income increased only 6% over 1979, the smallest gain in ten years, as earnings were burned up by the cost of producing power and paying off short-term debt. (See the article on page 98.)

General Public Utilities had some well-known special problems. The continuing impact of the Three Mile Island nuclear accident in 1979 left stockholders with no dividends ($106 million had been paid in 1978), while the market value of GPU stock plummeted by $800 million. With net income down 78%, total return to investors was minus 42%, by far the worst record of any company on the list.

The best gain in per-share earnings, 60%, was scored by Transco Companies (No. 39), a gas-pipeline enterprise. The greatest increase among electric utilities was at the Southern Co. (No. 3). The record-breaking heat wave that gripped the southern U.S. last July had millions of air conditioners working overtime, and the increased demand for power—plus rate increases accorded each of Southern Co.'s operating units—boosted profits by 57%. Per-share earnings were 48% higher than in more temperate 1979.

The 50 Largest COMMERCIAL-BANKING COMPANIES (ranked by assets)

RANK		COMPANY	ASSETS[1]	DEPOSITS		LOANS[2]		EMPLOYEES[3]	
'80	'79		($000)	($000)	RANK	($000)	RANK	NUMBER	RANK
1	2	**Citicorp** (New York)	114,920,000	71,771,000	2	69,915,000	1	53,700	2
2	1	**BankAmerica Corp.** (San Francisco)	111,617,291	88,426,156	1	62,482,124	2	83,713	1
3	3	**Chase Manhattan Corp.** (New York)	76,189,567	56,846,002	3	46,506,335	3	33,450	3
4	4	**Manufacturers Hanover Corp.** (New York)	55,522,249	41,744,624	4	30,348,158	4	24,893	6
5	5	**J.P. Morgan & Co.** (New York)	51,990,646	35,593,807	5	25,972,414	6	11,325	14
6	7	**Continental Illinois Corp.** (Chicago)	42,089,408	27,313,667	7	27,120,625	5	12,257	10
7	6	**Chemical New York Corp.**	41,342,220	30,067,000	6	22,159,068	7	18,223	7
8	8	**Bankers Trust New York Corp.**	32,325,603	23,942,285	9	15,990,717	11	11,827	12
9	10	**Western Bancorp.** (Los Angeles)	32,110,327	24,863,703	8	17,707,309	9	30,085†	4
10	9	**First Chicago Corp.**	28,699,441	21,361,154	10	16,788,573	10	10,602	15
11	11	**Security Pacific Corp.** (Los Angeles)	27,794,208	21,168,617	11	18,147,918	8	25,069	5
12	12	**Wells Fargo & Co.** (San Francisco)	23,638,063	16,207,468	12	15,969,283	12	17,460	8
13	14	**Crocker National Corp.** (San Francisco)	19,062,665	14,908,644	13	12,402,443	13	16,700	9
14	13	**Irving Bank Corp.** (New York)	18,089,818	14,163,187	14	8,416,288	16	9,200	18
15	15	**Marine Midland Banks** (Buffalo)[10]	17,479,565	14,163,018	15	9,588,419	14	10,245†	17
16	17	**Mellon National Corp.** (Pittsburgh)	16,156,458	10,889,575	17	7,866,350	17	6,906†	21
17	16	**First National Boston Corp.**	15,948,497	10,815,011	18	8,563,278	15	11,500	13
18	18	**Northwest Bancorp.** (Minneapolis)	14,394,930	11,044,233	16	7,617,618	18	12,017†	11
19	20	**First International Bancshares** (Dallas)	13,780,872	10,076,250	19	6,999,729	20	5,845†	30
20	19	**First Bank System** (Minneapolis)	13,475,043	9,768,402	20	7,162,237	19	10,441	16
21	21	**Republic of Texas Corp.** (Dallas)	11,866,990	8,472,675	23	6,040,616	22	5,755	31
22	24	**Texas Commerce Bancshares** (Houston)	11,286,924	8,630,646	22	5,665,728	24	6,078	26
23	23	**First City Bancorp. of Texas** (Houston)	11,275,094	8,721,736	21	5,378,455	25	6,353	25
24	22	**National Detroit Corp.**	10,868,976	7,804,413	25	5,222,721	26	6,651	24
25	25	**Bank of New York Co.**	10,422,805	8,319,087	24	5,673,810	23	7,199	20
26	27	**Seafirst Corp.** (Seattle)	9,587,714	7,239,346	26	6,137,922	21	8,597	19
27	28	**European American Bancorp.** (New York)	7,771,221	5,980,700	27	4,481,414	27	4,111	41
28	31	**NCNB Corp.** (Charlotte)	7,175,572	5,059,684	28	3,152,319	38	4,857	38
29	30	**Union Bank** (Los Angeles)[12]	7,004,086	4,999,282	29	3,789,767	28	5,690†	32
30	29	**Harris Bankcorp.** (Chicago)	6,904,530	4,759,254	31	3,474,656	31	3,840	44
31	49	**Republic New York Corp.**	6,446,902	4,394,141	35	2,541,047	47	2,000	50
32	33	**Pittsburgh National Corp.**	6,225,000	4,176,000	36	3,100,037	40	3,519	47
33	32	**Philadelphia National Corp.**	6,209,688	4,172,289	37	3,186,806	37	4,963	36
34	41	**Southeast Banking Corp.** (Miami)	5,853,575	4,397,109	34	2,515,327	48	6,000	27
35	36	**Northern Trust Corp.** (Chicago)	5,848,532	4,163,073	38	2,837,455	43	3,677	46
36	35	**Michigan National Corp.** (Bloomfield Hills, Mich.)	5,757,203	4,710,266	32	3,688,870	29	6,800	22
37	37	**Valley National Bank of Arizona** (Phoenix)	5,733,280	4,784,590	30	3,582,809	30	6,776	23
38	44	**National Bank of North America** (New York)[14]	5,692,536	4,454,532	33	3,437,993	32	5,000	35
39	40	**DETROITBANK Corp.**	5,667,781	3,976,585	40	2,621,065	46	4,100	42
40	39	**Wachovia Corp.** (Winston-Salem)	5,653,613	4,029,991	39	2,905,529	41	5,904	29
41	34	**AmeriTrust Corp.** (Cleveland)	5,601,942	3,936,363	41	3,112,580	39	4,559	39
42	26	**First Pennsylvania Corp.** (Philadelphia)	5,496,832	3,618,508	47	3,366,530	33	4,407	40
43	43	**National City Corp.** (Cleveland)	5,490,181	3,425,059	48	2,163,970	49	3,398	49
44	45	**Mercantile Texas Corp.** (Dallas)	5,460,466	3,906,681	43	3,190,935	36	3,732	45
45	47	**Rainier Bancorp.** (Seattle)	5,221,638	3,832,632	44	3,293,847	34	5,572	34
46	42	**BancOhio Corp.** (Columbus)	5,002,103	3,916,682	42	2,677,806	45	5,993†	28
47	48	**U.S. Bancorp.** (Portland, Ore.)	4,879,030	3,681,339	46	3,293,618	35	5,613	33
48	46	**Manufacturers National Corp.** (Detroit)	4,768,939	3,723,843	45	2,853,275	42	3,852	43
49	●	**Mercantile Bancorporation** (St. Louis)	4,645,743	3,070,853	50	2,118,513	50	3,401	48
50	38	**First Wisconsin Corp.** (Milwaukee)	4,523,712	3,244,698	49	2,679,438	44	4,893	37
		TOTALS	**970,969,469**	**704,735,860**		**545,908,744**		**568,748**	

●Not on last year's list.

[1] As of December 31, 1980

[2] Net of unearned discount and loan-loss reserve. Figure does not include direct lease financing.

[3] Year-end total unless followed by a dagger (†), in which case average for the year.

[4] After extraordinary items. Figures in parentheses indicate net losses. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown; a double dagger (‡) signifies an extraordinary charge of at least 10%.

[5] Sum of capital stock, surplus, and retained earnings at the end of the fiscal year. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company.

[6] For all companies, the figures are the "primary" earnings per share that appear in the company's income statement. These figures are based on a weighted average of the number of common shares and common-stock equivalents outstanding during the year. "Common-stock equivalents" generally include (a) convertible securities whose cash yield is less than two-thirds of the prime rate at the time the securities were issued and (b) options and warrants when the effect of their inclusion in the computation would reduce the "primary" earnings per share. Per-share earnings for 1979 and 1970 are adjusted for stock splits and stock dividends. They are not restated for mergers, acquisitions, or accounting changes made after 1970. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown, a double dagger (‡) an extraordinary charge of at least 10%. Results are listed as not available (N.A.) where the companies are wholly owned subsidiaries of other companies, or if the figures were not published in 1970.

NET INCOME[4]		STOCKHOLDERS' EQUITY[5]		NET INCOME AS PERCENT OF EQUITY		EARNINGS PER SHARE[6]					TOTAL RETURN TO INVESTORS[8]			
									GROWTH RATE 1970-80[7]		1980[9]		1970-80 AVERAGE[9]	
($000)	RANK	($000)	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK
499,000	2	3,891,000	2	12.8	32	4.02	4.34	1.28	12.12	15	7.96	30	7.16	25
643,443	1	3,908,407	1	16.5	7	4.38	4.10	1.19	13.92	5	14.61	24	10.37	9
354,178	3	2,407,715	3	14.7	18	10.15	8.81	3.68	10.68	20	31.85	10	5.40	32
228,528	5	1,708,585	5	13.4	26	6.87	6.42	2.77	9.51	24	13.31	26	5.04	35
341,687	4	2,180,399	4	15.7	11	8.33	7.07	2.37	13.39	9	17.67	22	8.36	15
225,941	6	1,524,942	6	14.8	17	5.75	4.99	1.69	13.03	11	13.45	25	10.50	8
173,451	10	1,307,215	8	13.3	28	11.05	8.53	5.06	8.12	29	25.66	15	3.07	39
213,800	8	1,009,640	11	21.2	2	8.65	4.65	2.72	12.27	13	62.62	2	6.86	27
225,064	7	1,401,328	7	16.1	9	5.70	5.38	1.59‡	13.62	7	20.46	19	9.20	13
63,008	24	1,204,519	9	5.2	47	1.59	2.83	1.25	2.44	42	8.54	29	5.24	34
181,304	9	1,170,326	10	15.5	12	6.55	5.94	2.24	11.33	19	29.16	13	9.54	11
121,864	11	913,573	12	13.3	27	5.33	5.45	1.78	11.59	16	13.00	28	8.23	16
95,735	18	729,668	18	13.1	29	5.66	8.94	3.27	5.64	37	35.43	8	7.56	20
85,339	21	568,773	24	15.0	15	9.70	7.77	3.59	10.45	21	47.34	4	9.22	12
62,728**	25	759,390	16	8.3	46	3.89**	3.18	3.40	1.36	43	(2.12)	41	(0.19)	44
112,452	14	901,173	13	12.5	33	4.19	4.92	2.28	6.27	35	21.23	17	7.27	23
102,146	16	729,965	17	14.0	22	8.22	6.84	3.47	9.01	25	31.56	11	7.26	24
113,495	13	796,605	14	14.2	20	4.39	4.13	1.49	11.41	18	18.88	20	8.91	14
117,966	12	687,910	19	17.1	6	5.66	4.79	1.41	14.91	3	33.62	9	14.48	3
111,986	15	782,035	15	14.3	19	7.42	6.80	2.79	10.28	22	6.31	33	6.69	28
86,878	20	583,956	21	14.9	16	4.81	4.08	1.33	13.72	6	28.87	14	10.07	10
101,493	17	576,088	22	17.6	3	3.48	2.85	0.68	17.74	1	51.36	3	18.72	1
89,047	19	575,371	23	15.5	13	6.61	5.34	1.78[11]	14.02	4	40.70	7	13.59	5
74,372	22	661,376	20	11.2	36	6.08	6.24	3.04	7.18	31	(10.18)	43	6.20	30
42,552‡	36	394,253	27	10.8	38	6.53‡	7.05	4.03	4.94	40	5.75	35	3.99	37
68,166	23	485,880	26	14.0	21	4.48	4.28	1.42	12.18	14	6.07	34	13.68	4
30,819	44	312,877	37	9.9	42	N:A.	N.A.	N.A.	—		—		—	
47,577	33	350,478	33	13.6	25	2.60	2.53	1.02	9.81	23	4.65	36	1.57	41
32,245	42	312,159	38	10.3	41	N.A.	N.A.	N.A.	—		—		—	
30,679	45	351,512	32	8.7	45	4.51	4.65	2.99	4.20	41	7.56	31	4.41	36
57,741	26	259,679	46	22.2	1	5.15	2.78	N.A.	—		143.63	1	—	
48,173	31	352,101	31	13.7	23	7.77	7.30	3.43	8.52	27	13.18	27	8.10	19
40,111	37	333,222	34	12.0	35	6.89	6.77	3.90	5.86	36	23.32	16	5.37	33
47,843	32	295,641	41	16.2	8	3.23	2.77	1.43	8.49	28	43.51	5	0.39	43
31,243	43	294,320	42	10.6	40	6.51	5.52	3.81	5.50	38	6.80	32	3.66	38
40,034	38	320,878	35	12.5	34	3.98	4.39	1.12[13]	13.52	8	(0.54)	40	10.68	7
53,211	28	305,638	39	17.4	4	5.26	4.65	1.64	12.36	12	17.69	21	7.50	21
12,055	48	291,408	44	4.1	48	N.A.	N.A.	N.A.	—		—		—	
34,787	41	320,059	36	10.9	37	4.19	4.77	2.11	7.10	32	(11.26)	44	8.13	17
48,287	30	355,070	30	13.6	24	3.08	2.71	1.82	5.40	39	4.31	37	0.74	42
51,791	29	533,926	25	9.7	43	5.62	6.20	2.80	7.22	30	4.03	38	7.10	26
(145,401)	50	215,589	49	—		(10.47)	1.06	2.46	—		(46.05)	47	(11.14)	45
46,793	35	360,688	29	13.0	31	5.97	6.15	2.53	8.96	26	(14.04)	45	7.36	22
47,543	34	276,915	45	17.2	5	2.99	2.51	0.87	13.14	10	43.15	6	—	
38,876	39	299,104	40	13.0	30	4.15	4.23	1.40	11.48	17	(2.79)	42	12.75	6
7,959	49	292,544	43	2.7	49	0.99	3.70	2.25	(7.88)	45	(19.50)	46	2.06	40
57,537	27	364,608	28	15.8	10	4.03	3.65	0.99	15.07	2	21.12	18	16.13	2
27,740	46	258,216	47	10.7	39	5.48	6.46	2.81	6.91	33	(0.20)	39	8.12	18
37,841	40	248,044	48	15.3	14	6.42	5.48	3.44	6.44	34	16.18	23	6.08	31
18,746‡	47	207,981	50	9.0	44	4.77‡	5.30	3.94	1.27	44	30.52	12	6.49	29
5,279,853		**39,372,749**												

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[7] Average annual growth rate, compounded.

[8] Total return includes both price appreciation and dividend yield, i.e., to an investor in the company's stock. The figures shown assume sales at the end of 1980 of stock owned at the end of 1970 or 1979. It has been assumed that any proceeds from cash dividends, the sale of rights and warrant offerings, and stock received in spin-offs were reinvested at the end of the year in which they were received. Returns are adjusted for stock splits, stock dividends, recapitalizations, and corporate reorganizations as they occur; however, no effort has been made to reflect the cost of brokerage commissions or of taxes. Results are listed as not available where shares are not publicly traded or traded on only a limited basis. Where corporations have more than one class of shares outstanding, only the more widely held and actively traded has been considered.

[9] Percentages are the returns received by the hypothetical investor described in footnote 8. The ten-year figures are annual averages, compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

[10] Company is 51% owned by Hong Kong & Shanghai Banking Corp.

[11] Figure is for First National Bank of Houston.

[12] Company is wholly owned by Standard Chartered Bank Ltd.

[13] Figure is for Michigan National Bank (Lansing).

[14] Wholly owned by National Westminster Bank (No. 9 on the 1979 Commercial-Banking Companies Outside the U.S.).

The 50 Largest LIFE-INSURANCE COMPANIES (ranked by assets)

RANK '80	RANK '79	COMPANY	ASSETS[1] ($000)	PREMIUM & ANNUITY RECEIPTS[2] ($000)	RANK	NET INVESTMENT INCOME ($000)	RANK
1	1	**Prudential** (Newark)*	59,778,470	8,668,858	1	3,561,970	1
2	2	**Metropolitan** (New York)*	48,309,771	6,010,574	2	3,449,368	2
3	3	**Equitable Life Assurance** (New York)*	34,599,737	4,163,345	4	1,959,052	3
4	4	**Aetna Life** (Hartford)[7]	22,270,634	5,412,032	3	1,392,105	4
5	5	**New York Life***	19,725,325	2,682,329	6	1,345,953	5
6	6	**John Hancock Mutual** (Boston)*	18,760,598	2,436,403	7	1,231,265	6
7	7	**Connecticut General Life** (Bloomfield)	13,776,921	1,861,488	8	956,218	7
8	8	**Travelers** (Hartford)[8]	13,351,227	3,955,025	5	934,764	8
9	9	**Northwestern Mutual** (Milwaukee)*	11,350,786	1,193,496	12	789,624	10
10	11	**Teachers Insurance & Annuity** (New York)	9,748,371	1,315,944	10	811,601	9
11	10	**Massachusetts Mutual** (Springfield)*	9,145,484	1,239,769	11	614,954	11
12	12	**Mutual of New York***	8,005,708	891,919	18	559,314	13
13	13	**Bankers Life** (Des Moines)*	7,988,996	1,536,613	9	571,707	12
14	14	**New England Mutual** (Boston)*	6,823,015	991,410	17	465,489	14
15	15	**Mutual Benefit** (Newark)*	5,872,814	1,093,035	15	396,912	15
16	16	**Connecticut Mutual** (Hartford)*	5,384,922	683,008	21	353,202	16
17	17	**Lincoln National Life** (Fort Wayne)[9]	4,960,720	1,138,649	13	339,062	17
18	18	**Penn Mutual** (Philadelphia)*	3,866,281	419,127	31	254,832	18
19	21	**State Farm Life** (Bloomington, Ill.)	3,329,539	536,115	26	238,382	19
20	19	**Continental Assurance** (Chicago)[10]	3,259,254	1,034,807	16	171,094	24
21	20	**Western & Southern** (Cincinnati)*	3,062,024	315,904	37	211,185	21
22	23	**Phoenix Mutual** (Hartford)*	3,038,195	543,621	25	202,182	23
23	22	**National Life & Accident** (Nashville)	2,906,963	368,718	34	213,724	20
24	24	**Pacific Mutual** (Newport Beach, Calif.)*	2,903,753	889,612	19	202,480	22
25	25	**Occidental of California** (Los Angeles)[11]	2,674,866	1,097,020	14	159,434	27
26	27	**American National** (Galveston)	2,476,704	372,587	33	164,769	26
27	26	**Franklin Life** (Springfield, Ill.)[12]	2,459,651	278,028	43	169,523	25
28	28	**National Life** (Montpelier)*	2,450,000	190,058	48	154,331	30
29	29	**State Mutual of America** (Worcester, Mass.)*	2,370,850	427,679	30	155,699	28
30	35	**Nationwide Life** (Columbus)	2,165,412	585,248	22	109,891	44
31	32	**Guardian of America** (New York)*	1,942,222	469,035	29	140,122	32
32	31	**Provident Mutual** (Philadelphia)*	1,914,725	220,211	47	127,839	36
33	33	**Home Life** (New York)*	1,912,645	300,935	39	134,020	33
34	36	**Union Mutual** (Portland, Me.)*	1,905,863	497,985	27	149,880	31
35	34	**Provident Life & Accident** (Chattanooga)	1,879,818	769,033	20	118,406	40
36	30	**Southwestern Life** (Dallas)[13]	1,862,907	278,291	42	128,354	35
37	38	**Minnesota Mutual** (St. Paul)*	1,756,391	340,559	35	110,029	43
38	37	**United Benefit** (Omaha)	1,751,886	274,711	44	129,280	34
39	43	**Aetna Life & Annuity** (Hartford)[7]	1,751,522	244,376	46	85,845	49
40	42	**General American Life** (St. Louis)*	1,710,749	568,385	23	118,939	38
41	48	**IDS Life** (Minneapolis)[14]	1,699,425	476,359	28	111,559	41
42	44	**Anchor National** (Los Angeles)	1,681,600	280,562	40	154,547	29
43	47	**Variable Annuity Life** (Houston)[15]	1,667,570	307,851	38	107,528	45
44	40	**Northwestern National** (Minneapolis)	1,657,401	327,182	36	110,057	42
45	39	**Jefferson Standard** (Greensboro, N.C.)	1,633,044	142,924	50	122,149	37
46	46	**Capitol Life** (Denver)[16]	1,556,686	403,716	32	118,821	39
47	41	**Liberty National** (Birmingham, Ala.)	1,527,948	278,597	41	103,667	47
48	45	**Life Insurance of Virginia** (Richmond)	1,504,739	177,903	49	101,857	48
49	49	**American United Life** (Indianapolis)*	1,444,890	274,484	45	105,435	46
50	50	**Bankers Life & Casualty** (Chicago)	1,319,948	552,943	24	76,538	50
		TOTALS	**370,898,970**	**59,518,463**		**24,494,958**	

Data for all companies are on the "statutory" accounting basis required by state insurance regulatory authorities.

*Indicates mutual company.

N.A. Not available.

[1] As of December 31, 1980.

[2] Includes premium income from life, accident, and health policies, annuities, and from contributions to deposit administration funds.

[3] After dividends to policyholders and federal income taxes, excluding capital gains and losses. Figures in parentheses indicate a loss.

[4] Face value of all life policies as of December 31, 1980.

[5] Change between December 31, 1979, and December 31, 1980.

[6] Includes home office, field force, and full-time agents.

NET GAIN FROM OPERATIONS[3]			LIFE INSURANCE IN FORCE[4]		INCREASE IN LIFE INSURANCE IN FORCE[5]				EMPLOYEES[6]	
($000)	MUTUAL	STOCK	($000)	RANK	($000)	RANK	% OF INCREASE	RANK	NUMBER	RANK
444,269	2		406,571,823	1	39,288,247	1	10.7	29	62,453	1
479,092	1		349,192,320	2	25,603,444	2	7.9	38	48,000	2
33,307	11		197,338,258	3	13,846,881	4	7.5	39	26,160	4
185,597	—	1	144,214,809	4	16,595,961	3	13.0	18	17,399	7
82,341	5		122,764,294	6	10,871,835	5	9.7	30	19,623	6
127,841	3		133,703,479	5	8,109,034	9	6.5	43	20,294	5
171,120	—	2	80,402,921	8	6,828,078	10	9.3	33	9,642	12
168,555	—	3	104,402,349	7	8,749,788	8	9.1	34	40,887	3
116,475	4		61,308,461	10	9,641,074	6	18.7	8	6,673	19
68,756	—	7	7,587,077	43	1,391,106	34	22.5	6	1,738	44
65,066	6		50,934,797	13	6,408,083	11	14.4	15	9,678	11
45,353	8		37,968,654	15	4,031,877	17	11.9	26	7,898	14
18,531	17		35,051,210	17	3,900,307	18	12.5	20	5,730	22
53,833	7		31,672,479	19	3,477,497	21	12.3	21	6,864	17
41,753	9		40,241,181	14	5,542,931	14	16.0	13	4,494	24
22,085	16		26,223,401	22	2,835,450	25	12.1	24	4,828	23
81,291	—	5	59,931,472	11	8,797,640	7	17.2	9	8,039	13
23,302	15		18,061,591	28	1,399,370	33	8.4	36	3,874	26
76,202	—	6	50,955,938	12	5,670,099	13	12.5	19	15,869	8
16,331	—	21	27,791,432	21	5,966,017	12	27.3	4	N.A.	
40,829	10		14,415,905	34	267,831	46	1.9	47	7,676	16
23,542	14		29,059,755	20	2,938,092	24	11.2	27	2,987	33
87,451	—	4	16,639,025	30	223,317	47	1.4	48	7,685	15
(13,396)	25		18,581,590	27	2,268,635	28	13.9	17	3,406	30
52,296	—	10	67,965,680	9	5,137,761	15	8.2	37	6,015	21
49,561	—	11	16,823,052	29	339,353	44	2.1	46	10,103	9
63,934	—	8	15,498,988	31	826,566	41	5.6	44	3,596	28
1,010	24		10,543,449	40	676,211	42	6.9	42	2,343	38
5,316	23		14,472,745	33	1,553,604	31	12.0	25	2,891	34
23,251	—	17	13,603,516	36	1,115,734	36	8.9	35	6,068	20
5,695	22		19,203,058	26	2,587,331	27	15.6	14	3,710	27
15,307	18		11,361,895	38	968,113	38	9.3	32	2,162	40
14,259	19		15,020,160	32	1,842,709	29	14.0	16	2,723	35
29,623	12		5,079,399	47	(231,841)	50	—		2,123	41
31,258	—	14	33,139,291	18	3,626,189	20	12.3	22	3,560	29
29,972	—	15	9,689,369	42	641,441	43	7.1	41	1,786	43
25,248	13		37,938,991	16	3,784,464	19	11.1	28	2,379	37
19,075	—	20	25,769,547	24	4,793,905	16	22.9	5	9,899	10
14,442	—	22	320	50	111	48	53.1	1	2,447	36
8,845	21		23,735,701	25	3,271,678	22	16.0	12	3,043	32
20,561	—	18	10,082,747	41	1,412,769	32	16.3	11	3,228	31
6,922	—	23	4,667,360	48	1,555,303	30	50.0	2	403	48
652	—	25	6,447	49	(309)	49	—		578	47
20,189	—	19	25,867,406	23	2,811,198	26	12.2	23	1,886	42
42,190	—	12	6,562,739	45	292,864	45	4.7	45	1,588	45
2,990	—	24	5,914,633	46	839,101	40	16.5	10	331	49
54,092	—	9	11,285,439	39	974,402	37	9.5	31	4,107	25
34,520	—	13	13,165,597	37	907,189	39	7.4	40	2,203	39
11,179	20		14,236,811	35	3,138,677	23	28.3	3	1,204	46
29,350	—	16	7,282,534	44	1,223,634	35	20.2	7	6,858	18
3,071,263			**2,483,931,095**		**238,740,751**				**429,131**	

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[7] Wholly owned by Aetna Life & Casualty (No. 2 on the Diversified-Financial list).

[8] Wholly owned by Travelers Corp. (No. 3 on the Diversified-Financial list).

[9] Wholly owned by Lincoln National Corp. (No. 12 on the Diversified-Financial list).

[10] Company is 84% owned by Loews (No. 10 on the Diversified-Financial list).

[11] Wholly owned by Transamerica (No. 11 on the Diversified-Financial list).

[12] Wholly owned by American Brands (No. 86 on the FORTUNE 500).

[13] Wholly owned by Tenneco (No. 17 on the Fortune 500).

[14] Wholly ow[illegible] Alleghany Corp. (No. 33 on the Diversified-Financial list).

[15] Wholly owned by American General Corp. (No. 15 on the Diversified-Financial list).

[16] Wholly owned by Gulf & Western Industries (No. 57 on the FORTUNE 500).

The 50 Largest DIVERSIFIED-FINANCIAL COMPANIES (ranked by assets)

RANK		COMPANY	ASSETS[1]	REVENUES[2]		NET INCOME[3]		STOCKHOLDERS' EQUITY[4]	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
1	●	**Federal National Mortgage Assn.** (Washington, D.C.)	58,470,003	5,202,910	5	14,208	39	1,457,258	8
2	1	**Aetna Life & Casualty** (Hartford)	35,752,700	13,318,000	1	561,600	1	3,281,100	1
3	2	**Travelers Corp.** (Hartford)	21,637,986	8,790,092	2	362,739	3	2,643,125	2
4	3	**American Express** (New York)	19,709,000	5,504,000	3	376,000	2	2,162,000	3
5	5	**Merrill Lynch & Co.** (New York)	13,245,784	3,022,473	9	203,349	11	969,491	17
6	4	**H.F. Ahmanson** (Los Angeles)	13,109,603	1,317,119	22	54,322**	28	858,969	19
7	8	**INA** (Philadelphia)	10,604,000	5,255,000	4	292,738	4	1,841,585	5
8	7	**Great Western Financial** (Beverly Hills)	10,252,838	997,222	27	39,172	33	658,636	24
9	6	**First Charter Financial** (Beverly Hills)	9,676,378	955,093	29	39,206	32	798,152	22
10	9	**Loews** (New York)	9,125,112	4,535,098	6	206,099	10	1,194,589	12
11	10	**Transamerica** (San Francisco)	8,887,023	4,384,055	7	244,979	7	1,485,482	7
12	11	**Lincoln National** (Fort Wayne, Ind.)	8,470,373	2,692,911	11	175,697	12	1,311,817	10
13	12	**Continental** (New York)	8,215,970	3,419,046	8	269,192	6	2,122,756	4
14	14	**Imperial Corp. of America** (San Diego)	7,347,443	713,703	34	40,659	31	505,554	27
15	13	**American General Corp.** (Houston)[10]	7,293,328	2,291,716	12	229,906	8	1,076,156	14
16	16	**American International Group** (New York)	6,899,756	2,709,475	10	284,699	5	1,592,411	6
17	15	**Beneficial** (Wilmington)	6,030,000	1,323,000	20	94,000	18	1,084,000	13
18	21	**First Boston** (New York)	6,020,532	216,666	44	33,563	36	153,234	39
19	19	**Avco Corp.** (Greenwich, Conn.)[11]	5,843,526	2,149,906	14	118,550	17	998,685	16
20	18	**Walter E. Heller International** (Chicago)	5,728,288	747,945	33	43,011	30	340,843	29
21	24	**Golden West Financial** (Oakland, Calif.)	5,578,887	485,290	38	38,062	34	211,639	35
22	17	**Household Finance** (Prospect Heights, Ill.)	5,561,700	959,600	28	141,000	15	1,293,400	11
23	27	**E.F. Hutton Group** (New York)	4,706,635	1,125,271	25	82,630	23	259,208	33
24	23	**Gibraltar Financial Corp. of California** (Beverly Hills)	4,295,449	425,727	41	(7,934)‡	50	192,519	37
25	22	**St. Paul Companies**	4,252,380	1,868,314	16	123,625	16	1,042,950	15
26	25	**U.S. Fidelity & Guaranty** (Baltimore)	4,247,339	2,252,945	13	223,101	9	1,324,018	9
27	26	**Crum & Forster** (New York)	3,896,211	1,931,833	15	141,558	14	859,504	18
28	32	**General Re Corp.** (Greenwich, Conn.)[12]	3,654,835	1,104,253	26	155,099	13	846,354	20
29	28	**USLIFE** (New York)	3,581,587	788,549	32	88,370	22	687,632	23
30	35	**Paine Webber** (New York)[13]	3,500,335	895,666	31	(6,893)	49	108,987	43
31	36	**Donaldson Lufkin & Jenrette** (New York)	3,474,451	485,099	39	8,750	40	67,965	49
32	29	**American Financial** (Cincinnati)	3,393,747	1,332,006	19	69,475	25	336,667	30
33	30	**Alleghany Corp.** (New York)	3,353,622	1,165,620	24	46,244‡	29	312,139	31
34	34	**Bache Group** (New York)[14]	2,965,953	621,957	37	26,752	37	152,320	40
35	40	**Kemper** (Long Grove, Ill.)	2,777,348	1,459,698	17	88,904	21	547,409	26
36	38	**Chubb** (New York)	2,745,528	1,291,850	23	82,302	24	638,456	25
37	33	**Reliance Group** (New York)	2,681,239	1,350,933	18	92,904	19	359,013	28
38	37	**SAFECO** (Seattle)	2,623,921	1,317,319	21	92,164	20	827,998	21
39	41	**Baldwin-United** (Cincinnati)	2,590,876	939,571	30	62,554	26	274,956	32
40	39	**Financial Federation** (Los Angeles)	2,361,796	228,424	42	2,934	45	189,302	38
41	●	**City Federal Savings & Loan Assn.** (Elizabeth, N.J.)	2,337,297	219,813	43	3,349	43	99,647	45
42	42	**PennCorp Financial** (Santa Monica)	2,267,876	479,044	40	21,752	38	256,857	34
43	●	**Shearson Loeb Rhoades** (New York)	2,267,691	652,466	36	55,805	27	144,060	41
44	43	**TRANSOHIO Financial Corp.** (Cleveland)	1,969,073	180,625	47	2,815	46	103,876	44
45	48	**American Savings & Loan Assn. of Florida** (Miami)[15]	1,935,931	186,831	46	7,405	41	58,459	50
46	45	**Northern California Savings & Loan Assn.** (Palo Alto)	1,912,394	189,925	45	3,609	42	122,512	42
47	47	**Western Financial** (Phoenix)	1,904,272	171,741	49	3,034	44	75,614	47
48	46	**Financial Corp. of Santa Barbara**	1,898,018	177,010	48	347	47	82,256	46
49	44	**Dean Witter Reynolds** (San Francisco)[16]	1,869,939	706,958	35	36,012	35	194,468	36
50	49	**Broadview Financial** (Cleveland)	1,358,075	166,375	50	(2,173)	48	68,598	48
		Totals	**364,784,048**	**94,706,143**		**5,367,245**		**38,274,626**	

●Not on last year's list.

N.A. Not available.

[1] Total assets shown as of December 31, 1980, unless otherwise noted. Only assets of consolidated subsidiaries are included. Holding companies that own commercial banks or life-insurance companies are listed here only when these subsidiaries represent less than 80% of assets.

[2] Total income during the year, including any consolidated nonfinancial revenues from manufacturing, retailing, etc., and revenues from discontinued operations when published. All companies on the list must have derived more than 50% of their revenues from two or more kinds of financial business and be publicly held.

[3] After extraordinary items and realized capital gains and losses. Figures in parentheses indicate net loss. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown; a double dagger (‡) signifies an extraordinary charge of at least 10%.

[4] Sum of capital stock, surplus, and retained earnings at the end of the fiscal year. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company.

[5] Year-end total.

[6] Earnings per share have been computed as described in footnote 6, page 116.

NET INCOME AS PERCENT OF EQUITY %	RANK	EMPLOYEES[5] NUMBER	RANK	EARNINGS PER SHARE[6] '80($)	'79($)	'70($)	GROWTH RATE 1970-80[7] %	RANK	TOTAL RETURN TO INVESTORS[8] 1980[9] %	RANK	1970-80 AVERAGE[9] %	RANK
1.0	46	1,142	42	0.24	2.81	0.19	2.36	33	(19.41)	45	2.40	33
17.1	16	39,100	4	6.96	7.25	1.46	16.90	16	12.53	24	12.63	12
13.7	23	29,339	7	8.56	8.43	1.78	17.01	15	8.46	27	5.96	26
17.4	14	44,031	2	5.27	4.83	1.19	16.04	17	41.25	11	6.94	23
21.0	7	31,704	5	5.51	3.26	1.28	15.72	18	98.23	9	—	
6.3	38	4,300	32	2.34**	5.11	N.A.	—		(2.04)	36	—	
15.9	21	40,155	3	7.47	6.78	1.95	14.37	21	29.73	14	10.53	15
5.9	39	2,239	36	1.74	4.15	0.29	19.62	11	(11.35)	42	3.78	32
4.9	40	2,300	34	1.32	3.05	0.93	3.56	32	(7.40)	40	1.55	35
17.3	15	29,400	6	16.70	18.19	1.91	24.21	6	37.83	12	13.05	11
16.5	18	29,000	8	3.75	3.66	0.63	19.53	12	17.14	21	7.88	21
13.4	24	14,570	12	8.10	7.09	2.30	13.42	23	(2.06)	37	6.61	25
12.7	28	22,649	10	5.24	5.10	1.30	14.96	19	(1.12)	34	10.25	17
8.0	37	1,700	38	2.86	5.24	0.91	12.13	26	22.36	18	10.41	16
21.4	6	8,274	26	9.06	8.79	0.34	38.86	1	6.40	30	13.25	10
17.9	12	21,500	11	7.54	6.93	0.79	25.31	5	26.86	15	14.65	9
8.7	35	12,100	14	3.45	4.24	2.86	1.89	35	(10.34)	41	1.52	36
21.9	5	1,472	39	6.79	3.78	3.51	6.82	29	106.46	8	7.60	22
11.9	31	26,869	9	6.56	8.56	0.40	32.28	4	8.81	26	10.02	19
12.6	30	4,824	30	3.61	3.40	1.72**	7.70	28	(4.91)	38	2.26	34
18.0	11	1,128	43	1.80	1.74	0.25	21.82	10	35.84	13	15.21	6
10.9	34	78,000	1	2.88	3.33	1.98	3.82	31	(1.72)	35	0.25	38
31.9	2	10,075	18	6.16	2.90	N.A.	—		198.45	2	—	
—		1,300	41	(0.57)‡	2.12	0.35	—		(21.33)	48	5.61	29
11.9	32	11,219	16	5.90	7.77	1.65	13.59	22	0.00	33	6.66	24
16.9	17	8,650	25	7.99	8.28	0.34	37.12	2	17.07	22	12.09	14
16.5	19	9,800	22	5.04	5.19	0.88	19.07	13	6.76	29	14.91	7
18.3	10	2,021	37	7.11	6.03	0.82	24.11	7	12.94	23	10.14	18
12.9	27	4,400	31	3.60	3.95	1.09	12.69	24	7.89	28	5.89	28
—		9,764	23	(1.32)	2.24	N.A.	—		152.57	4	—	
12.9	26	2,260	35	0.97	0.43	0.33	11.38	27	119.32	6	1.25	37
20.6	8	12,000	15	2.64	6.11	0.47	18.84	14	89.91	10	15.32	5
14.8	22	7,000	29	3.91‡	5.05	0.23	32.75	3	26.20	16	16.14	4
17.6	13	7,850	27	2.82	1.55	N.A.	—		129.67	5	—	
16.2	20	12,500	13	7.03	7.08	0.93	22.42	9	18.70	19	16.32	3
12.9	25	7,600	28	6.66	7.22	1.73	14.43	20	10.26	25	4.70	31
25.9	3	9,500	24	12.51	23.33	(4.00)‡	—		25.83	17	19.87	2
11.1	33	11,200	17	4.79	6.96	1.49	12.39	25	1.82	31	9.01	20
22.8	4	10,000	19	6.40	5.78	0.81	22.96	8	119.13	7	31.17	1
1.5	45	591	50	0.70	5.34	(0.55)	—		18.52	20	12.12	13
3.4	42	1,322	40	N.A.	N.A.	N.A.	—		—		—	
8.5	36	2,900	33	1.12	1.80	0.62	6.09	30	(17.90)	44	(10.15)	39
38.7	1	10,000	21	6.99	2.83	N.A.	—		260.64	1	—	
2.7	44	732	47	0.75	3.43	N.A.	—		(25.31)	49	—	
12.7	29	876	44	2.98	5.76	N.A.	—		(16.71)	43	—	
2.9	43	803	46	0.71	3.40	0.98	(3.17)	36	(5.87)	39	14.70	8
4.0	41	806	45	1.35	7.77	1.07	2.35	34	(21.20)	47	5.90	27
0.4	47	725	49	0.09	3.14	0.90	(20.57)	37	0.85	32	4.81	30
18.5	9	10,000	20	3.56	1.10	N.A.	—		178.55	3	—	
—		729	48	(0.73)	3.28	N.A.	—		(20.32)	46	—	
		612,417										

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[7] Average annual growth rate, compounded. No growth rate is given if the company had a loss in either 1970 or 1980.

[8] Total return has been computed as described in footnote 8, page 117.

[9] Percentages shown are the returns received by the hypothetical investor described in footnote 8, page 117. The ten-year figures are annual averages compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

[10] Name changed from American General Insurance on June 30, 1980.

[11] Figures are for fiscal year ending November 30, 1980.

[12] Name changed from General Reinsurance on October 31, 1980.

[13] Figures are for fiscal year ending September 26, 1980.

[14] Figures are for fiscal year ending July 31, 1980.

[15] Figures are for fiscal year ending September 30, 1980.

[16] Figures are for fiscal year ending August 31, 1980.

The 50 Largest RETAILING COMPANIES (ranked by sales)

RANK		COMPANY	SALES[1]	ASSETS[2]		NET INCOME[3]		STOCKHOLDERS' EQUITY[4]	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
1	1	**Sears Roebuck** (Chicago)	25,194,900	28,053,800	1	606,000	1	7,689,000	1
2	2	**Safeway Stores** (Oakland)[10]	15,102,673	3,338,832	6	119,368	8	1,064,098	9
3	3	**K mart** (Troy, Mich.)	14,204,381	6,102,462	2	260,527	3	2,343,172	3
4	4	**J.C. Penney** (New York)	11,353,000	5,863,000	3	233,000	4	2,639,000	2
5	5	**Kroger** (Cincinnati)[10]	10,316,741	1,997,545	11	94,386	14	671,366	13
6	7	**F.W. Woolworth** (New York)	7,218,176	3,171,894	7	160,915	6	1,407,150	5
7	6	**Great Atlantic & Pacific Tea** (Montvale, N.J.)[11]	6,684,179	1,230,522	23	(3,807)	48	394,091	25
8	8	**Lucky Stores** (Dublin, Calif.)	6,468,682	1,400,601	18	90,458	16	451,613	23
9	14	**American Stores Co.** (Salt Lake City)	6,419,884	1,292,992	20	51,553	26	243,868	33
10	9	**Federated Department Stores** (Cincinnati)	6,300,686	3,575,513	5	277,727	2	1,827,105	4
11	10	**Montgomery Ward** (Chicago)[10,13]	5,496,907	3,942,230	4	(137,122)	50	1,204,136	6
12	11	**Winn-Dixie Stores** (Jacksonville)[14]	5,388,979	903,709	27	91,950	15	473,872	21
13	13	**Southland** (Dallas)	4,758,656	1,495,385	17	77,672	18	554,209	16
14	12	**City Products** (Des Plaines,Ill.)[10,15]	4,462,378	1,283,236	22	43,015	28	490,405	20
15	15	**Jewel Companies** (Chicago)	4,267,922	1,288,901	21	55,893	22	511,006	19
16	16	**Dayton Hudson** (Minneapolis)	4,033,536	2,155,234	10	146,719	7	1,066,368	8
17	17	**May Department Stores** (St. Louis)	3,172,976	2,259,344	9	116,915	9	881,492	10
18	20	**Grand Union** (Elmwood Park, N.J.)[16]	3,137,612	707,127	31	30,669	34	212,952	35
19	18	**Albertson's** (Boise)	3,039,129	627,219	34	41,621	31	208,996	36
20	24	**Wickes Companies** (San Diego)[17]	2,876,973	1,705,296	12	8,276	45	296,535	30
21	28	**ARA Services** (Philadelphia)[18]	2,806,020	1,097,065	25	42,582‡	29	462,155	22
22	19	**Carter Hawley Hale Stores** (Los Angeles)	2,632,921	1,651,368	14	58,082	21	624,617	14
23	21	**Supermarkets General** (Woodbridge, N.J.)	2,628,851	572,884	36	26,067	37	141,662	41
24	25	**R.H. Macy** (New York)[19]	2,373,531	1,328,254	19	103,026	13	594,001	15
25	22	**Rapid-American** (New York)	2,351,591	1,561,685	16	27,566	35	74,943	48
26	27	**Melville** (Harrsion, N.Y.)[10]	2,332,244	889,468	28	114,707	10	513,745	18
27	23	**Allied Stores** (New York)	2,298,838	1,620,270	15	83,906	17	753,400	11
28	29	**McDonald's** (Oak Brook, Ill.)[10]	2,215,463	2,643,369	8	220,893	5	1,140,883	7
29	31	**Dillion Companies** (Hutchinson, Kans.)[14]	2,077,265	434,943	42	27,397	36	162,850	40
30	30	**Stop & Shop Companies** (Boston)	2,059,183	474,549	39	12,163	43	135,105	42
31	32	**Associated Dry Goods** (New York)	1,952,239	1,020,871	26	52,211	25	546,142	17
32	35	**Marriott Corp.** (Washington, D.C.)[10]	1,718,725	1,214,264	24	72,030	19	311,505	28
33	39	**Wal-Mart Stores** (Bentonville, Ark.)	1,643,199	592,345	35	55,682	23	248,309	32
34	34	**Zayre** (Framingham, Mass.)	1,594,235	560,737	37	18,015	40	177,814	38
35	38	**Jack Eckerd** (Clearwater, Fla.)[19]	1,547,753	549,492	38	69,254	20	407,724	24
36	●	**Holiday Inns** (Memphis)[10]	1,533,758	1,680,103	13	108,275	12	707,961	12
37	36	**Walgreen** (Deerfield, Ill.)[20]	1,530,722	448,633	41	34,813	33	207,379	37
38	37	**Fisher Foods** (Bedford Heights, Ohio)[10]	1,412,962	341,122	45	6,703	46	83,653	45
39	40	**Tandy** (Fort Worth)[14]	1,384,637	710,298	30	112,235	11	283,125	31
40	41	**First National Supermarkets** (Maple Heights, Ohio)[16]	1,364,797	208,777	50	5,253	47	37,505	50
41	●	**Sigmor** (San Antonio)[14]	1,327,605	452,803	40	48,118	27	174,400	39
42	42	**Waldbaum** (Central Islip, N.Y.)[10]	1,271,624	220,008	49	10,828	44	76,294	47
43	43	**Giant Food** (Washington, D.C.)[11]	1,242,620	307,447	47	17,859	41	108,082	43
44	46	**National Tea** (Rosemont, Ill.)[10]	1,219,304	270,901	48	14,173**	42	89,838	44
45	33	**Food Fair** (Ft. Lauderdale)[19]	1,124,067	365,982	44	22,573**	38	58,798	49
46	44	**Mercantile Stores** (Wilmington)	1,108,076	653,000	33	42,447	30	352,339	27
47	48	**Revco D.S.** (Twinsburg, Ohio)[21]	1,092,797	367,144	43	38,916	32	214,833	34
48	50	**Zale** (Dallas)[16]	1,041,699	718,002	29	54,025	24	369,553	26
49	47	**Fed-Mart** (San Diego)[20]	1,040,415	313,446	46	(6,330)	49	80,269	46
50	●	**Marshall Field** (Chicago)	1,012,501	672,297	32	20,686	39	309,807	29
		TOTALS	**200,838,012**	**90,336,369**		**3,879,890**		**34,079,125**	

●Not on last year's list.

N.A. Not available.

[1] Net sales include all operating revenues and revenues from discontinued operations when they are published. All figures are for the fiscal year ending January 31, 1981, unless otherwise noted. Sales of subsidiaries are included when they are consolidated.

[2] Total assets are those shown at the company's year-end.

[3] After extraordinary items. Figures in parentheses indicate net losses. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the net income shown; a double dagger (‡) signifies an extraordinary charge of at least 10%.

[4] Sum of capital stock, surplus, and retained earnings at the end of the fiscal year. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company.

[5] Year-end total unless followed by a dagger (†), in which case average for the year.

[6] Earnings per share have been computed as described in footnote 6, page 116.

[7] Average annual growth rate compounded. No figure is given if the company had a loss in 1970 or 1980.

EMPLOYEES[5]		NET INCOME AS PERCENT OF				EARNINGS PER SHARE[6]					TOTAL RETURN TO INVESTORS[8]			
		SALES		EQUITY					GROWTH RATE 1970-80[7]		1980[9]		1970-80 AVERAGE[9]	
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK
390,000†	1	2.4	18	7.9	45	1.92	2.54	1.51	2.43	39	(7.85)	40	(5.16)	41
150,012	5	0.8	43	11.2	33	4.57	5.49	2.70	5.40	34	(5.76)	37	3.95	25
256,000	2	1.8	25	11.1	35	2.07	2.84	0.62	12.81	17	(20.94)	45	0.91	31
194,000	4	2.1	22	8.8	42	3.33	3.52	2.14	4.52	36	(3.08)	35	(4.76)	40
124,642	7	0.9	40	14.1	26	3.41	3.13	1.50	8.56	25	21.84	13	7.88	17
196,527†	3	2.2	20	11.4	32	5.30	6.02	2.43	8.11	28	5.48	29	2.30	28
58,000	18	—				(0.15)	(2.10)	2.15	—		(39.12)	47	(13.56)	45
65,000	14	1.4	30	20.0	9	1.80	2.01	0.72	9.60	23	3.77	32	5.76	21
63,000	15	0.8	42	21.1	8	4.11	4.36	0.96[12]	15.65	14	(16.71)	43	6.56	19
116,600	10	4.4	7	15.2	22	5.74	4.21	1.89	11.75	20	9.59	24	0.65	33
131,994†	6	—				N.A.	N.A.	N.A.	—		—		—	
60,700	16	1.7	26	19.4	11	3.42	3.33	1.09	12.11	19	4.75	31	8.15	16
44,600	27	1.6	27	14.0	27	3.29	3.73	0.88	14.10	15	(23.30)	46	3.99	24
58,000	17	1.0	39	8.8	43	N.A.	N.A.	N.A.	—		—		—	
55,000†	20	1.3	33	10.9	36	4.76	4.54	2.24	7.83	29	37.56	7	5.08	22
70,000†	11	3.6	13	13.8	29	6.16	8.10	1.16	18.17	7	7.62	27	8.91	14
66,000†	13	3.7	11	13.3	30	4.01	3.93	1.39	11.18	21	16.68	17	6.81	18
33,000	29	1.0	38	14.4	24	N.A.	N.A.	N.A.	—		—		—	
28,000	32	1.4	31	19.9	10	2.70	2.49	0.41	20.74	5	10.16	23	16.91	3
43,219	28	0.3	47	2.8	47	0.50	3.49	0.98	(6.51)	43	(13.21)	41	(3.43)	38
120,000	8	1.5	28	9.2	40	3.61‡	5.23	2.35	4.39	38	(0.73)	34	(6.23)	42
55,000†	19	2.2	21	9.3	39	2.11	2.67	1.36	4.49	37	13.25	21	1.39	30
30,000	31	1.0	37	18.4	13	3.13	2.67	0.97	12.43	18	17.25	16	4.08	23
45,000†	25	4.3	8	17.3	15	6.48	4.85	1.38	16.73	11	22.04	12	10.82	8
46,000	24	1.2	34	36.8	3	3.55	4.55	1.82‡	6.91	32	11.60	22	12.54	6
50,812	22	4.9	5	22.3	7	4.54	4.04	0.89	17.70	9	32.18	9	9.27	13
54,000	21	3.6	12	11.1	34	4.11	4.41	0.86	16.93	10	(5.55)	37	10.24	10
117,000	9	10.0	1	19.4	12	5.49	4.68	0.49	27.33	3	14.10	20	12.60	5
23,426	38	1.3	32	16.8	17	1.70	2.08	0.38	16.16	12	9.44	25	13.58	4
28,000	33	0.6	44	9.0	41	3.01	3.70	1.44	7.65	31	5.28	30	3.41	26
49,750†	23	2.7	17	9.6	38	3.86	3.25	2.32	5.22	35	24.05	10	(0.04)	35
67,300	12	4.2	9	23.1	5	2.61	1.96	0.38	21.25	4	86.94	3	10.24	11
27,000	36	3.4	16	22.4	6	1.73	1.34	0.08	35.99	1	75.18	4	34.42	2
28,000	35	1.1	36	10.1	37	3.42	3.30	1.62	7.76	30	97.52	2	(3.75)	39
25,100	37	4.5	6	17.0	16	2.92	2.53	0.57	17.75	8	23.25	11	8.29	15
45,000	26	7.1	3	15.3	21	2.92	1.76	1.32	8.26	26	53.82	5	(0.89)	37
28,000	34	2.3	19	16.8	18	5.12	4.54	1.48	13.21	16	20.65	14	11.18	7
15,000	44	0.5	45	8.0	44	1.05	(1.14)	0.90	1.55	40	(14.44)	42	(0.38)	36
22,000	39	8.1	2	39.6	1	4.47	3.23	0.28	31.92	2	216.00	1	34.55	1
17,000	43	0.4	46	14.0	28	1.24	0.96	N.A.	—		9.43	26	—	
5,245†	50	3.6	14	27.6	4	3.59	1.55	NA.	—		5.56	28	—	
6,000	49	0.9	41	14.2	25	4.27	3.09	0.98	15.86	13	17.71	15	6.52	20
12,900	45	1.4	29	16.5	19	3.64	3.40	1.91	6.66	33	1.81	33	9.73	12
12,000†	46	1.2	35	15.8	20	1.42	1.31	1.30	0.89	41	14.81	19	(7.18)	43
11,000	47	2.0	24	38.4	2	3.06**	(27.94)	1.39	8.21	27	34.64	8	(10.66)	44
18,000	41	3.8	10	12.0	31	7.20	7.25	2.83	9.79	22	(6.74)	39	0.68	32
17,500	42	3.6	15	18.1	14	2.88	2.51	0.52	18.67	6	16.61	18	10.71	9
19,000	40	5.2	4	14.6	23	4.50	3.21	1.90	9.00	24	41.86	6	1.44	29
10,800	48	—				(2.10)	(5.54)	1.53	—		(19.46)	44	2.39	27
30,100	30	2.0	23	6.7	46	1.93	1.85	1.82	0.59	42	(4.73)	36	0.31	34
3,240,227														

[8] Total return has been computed as described in footnote 8, page 117.

[9] Percentages shown are the returns received by the hypothetical investor described in footnote 8, page 117. The ten-year figures are annual averages, compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnotes to the earnings-per-share figures.

[10] Figures are for fiscal year ending December 31, 1980.

[11] Figures are for fiscal year ending February 23, 1980.

[12] Figure is for Skaggs.

[13] Wholly owned by Mobil (No. 2 on the FORTUNE 500).

[14] Figures are for fiscal year ending June 30, 1980.

[15] Wholly owned by Household Finance (No. 22 on the Diversified-Financial list).

[16] Figures are for fiscal year ending March 31, 1980.

[17] Name changed from Wickes Corp. to Wickes Companies on August 12, 1980, when company acquired Gamble-Skogmo (1979: No. 26).

[18] Figures are for fiscal year ending September 30, 1980.

[19] Figures are for fiscal year ending July 31, 1980.

[20] Figures are for fiscal year ending August 31, 1980.

[21] Figures are for fiscal year ending May 31, 1980.

The 50 Largest TRANSPORTATION COMPANIES (ranked by operating revenues)

RANK		COMPANY	OPERATING REVENUES[1]	ASSETS[2]		NET INCOME[3]		STOCKHOLDERS' EQUITY[4]	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
1	2	**UAL** (Elk Grove, Ill.)	5,041,335	4,041,458	5	21,008	30	1,164,100	8
2	1	**Trans World Corp.** (New York)	5,018,281	3,184,975	8	67,606**	18	3,184,975	1
3	●	**CSX Corp.** (Richmond, Va.)[10]	4,841,350	7,523,101	1	281,607	3	2,873,065	2
4	3	**United Parcel Service** (Greenwich, Conn.)	4,025,169	1,346,792	22	188,669	10	632,790	16
5	9	**Pan American World Airways** (New York)[12]	4,016,060	3,365,588	6	80,266	15	805,563	14
6	5	**Burlington Northern** (St. Paul)[13]	3,953,640	5,267,005	3	222,874	7	2,430,545	3
7	4	**American Airlines** (Dallas-Fort Worth)	3,820,978	3,277,883	7	(75,792)**	48	695,064	15
8	6	**Eastern Air Lines** (Miami)	3,452,542	2,816,177	12	(17,358)**	42	435,456	18
9	8	**Santa Fe Industries** (Chicago)	3,215,000	4,330,200	4	301,800	2	2,305,500	4
10	10	**Delta Air Lines** (Atlanta)[14]	2,956,960	2,042,539	17	93,158	14	921,969	10
11	7	**Southern Pacific** (San Francisco)	2,859,666	5,329,894	2	155,946	13	2,169,042	5
12	12	**Missouri Pacific Corp.** (St. Louis)	2,237,432	2,730,161	14	166,065	12	908,938	12
13	14	**Consolidated Freightways** (San Francisco)	1,653,604	784,060	31	9,976‡	34	337,815	21
14	18	**Northwest Airlines** (St. Paul)	1,639,330	1,532,539	21	7,084	35	839,042	13
15	15	**Southern Ry.** (Washington, D.C.)	1,637,712	3,164,815	9	180,918	11	1,342,297	7
16	16	**Norfolk & Western Ry.** (Roanoke)	1,576,273	2,921,862	11	232,416	6	1,578,351	6
17	●	**Tiger International** (Los Angeles)	1,562,270	2,758,425	13	42,375	22	446,279	17
18	17	**Braniff International** (Dallas-Fort Worth)	1,452,130	1,107,368	23	(131,436)	49	30,837	46
19	20	**Natomas** (San Francisco)	1,375,531	1,798,123	19	208,370	9	961,928	9
20	27	**Seatrain Lines** (New York)[14]	1,257,495	913,414	27	(35,258)	47	(12,491)	50
21	21	**Sohio Pipe Line** (Cleveland)[16]	1,184,857	3,107,124	10	381,733	1	144,520	35
22	19	**Roadway Express** (Akron)	1,154,862	586,031	35	42,855‡	21	333,620	22
23	23	**Western Air Lines** (Los Angeles)	995,755	917,048	26	(29,632)	46	197,346	31
24	24	**Continental Air Lines** (Los Angeles)	992,019	784,149	30	(20,704)	43	190,874	33
25	25	**Illinois Central Gulf Railroad** (Chicago)[17]	986,906	1,880,453	18	44,429	20	917,402	11
26	29	**USAir** (Washington, D.C.)	971,825	714,771	33	60,386	19	271,798	26
27	22	**Leaseway Transportation** (Cleveland)	943,856	778,814	32	41,002‡	23	233,969	27
28	28	**Chicago & North Western Transportation** (Chicago)	935,672	834,430	29	39,034	24	116,341	38
29	33	**Republic Airlines** (Minneapolis)	916,715	1,036,226	25	(24,662)	45	117,627	37
30	31	**Arco Pipe Line** (Independence, Kans.)[19]	833,733	2,364,374	15	241,419	5	215,437	28
31	30	**Exxon Pipeline** (Houston)[20]	831,880	2,217,616	16	263,025	4	352,473	20
32	26	**Yellow Freight System** (Overland Park, Kans.)	776,461	448,554	39	(13,749)‡	41	192,033	32
33	34	**McLean Trucking** (Winston-Salem)[14]	724,889	303,195	45	(2,432)	39	102,950	41
34	36	**BP Pipelines** (San Francisco)	590,810	1,658,234	20	216,247	8	273,162	25
35	40	**Piedmont Aviation** (Winston-Salem)	484,012	380,383	42	16,062	31	99,110	42
36	39	**Frontier Airlines** (Denver)	468,865	349,637	44	23,214	29	121,116	36
37	●	**Telecom Corp.** (Houston)[21]	466,858	253,376	46	(21,544)‡	44	47,859	45
38	41	**Alexander & Baldwin** (Honolulu)	461,278	655,492	34	71,860	17	328,066	23
39	38	**Allied Van Lines** (Broadview, Ill.)	444,163	57,375	50	1,319‡	38	16,058	48
40	●	**Federal Express** (Memphis)[22]	415,379	398,127	40	38,730	25	171,589	34
41	35	**Chicago, Milwaukee, St. Paul & Pacific RR** (Chicago)	405,990	884,640	28	(183,296)	50	112,174	39
42	42	**PSA** (San Diego)	370,204	393,599	41	12,653	33	94,029	43
43	44	**RLC Corp.** (Wilmington)[23]	350,496	351,709	43	14,812‡	32	104,430	40
44	43	**Rio Grande Industries** (Denver)	349,927	537,591	37	34,180	26	288,222	24
45	48	**United Van Lines** (Fenton, Mo.)	343,990	64,895	49	1,465	37	13,644	49
46	46	**Arkansas Best** (Fort Smith, Ark.)	340,477	164,326	47	(10,790)‡	40	30,652	47
47	●	**Kansas City Southern Industries** (Kansas City)	323,511	543,928	36	30,590	28	199,994	30
48	47	**Soo Line RR** (Minneapolis)	314,265	485,293	38	34,045	27	211,796	29
49	●	**Overseas Shipholding Group** (New York)	304,801	1,067,901	24	79,062	16	423,269	19
50	50	**Bekins** (Glendale, Calif.)	294,945	108,710	48	2,606‡	36	50,433	44
		TOTALS	**76,572,209**	**84,564,360**		**3,384,213**		**30,023,058**	

●Not on last year's list.

N.A. Not available.

[1] Consolidated operating revenues include those from non-transportation activities and sales from discontinued operations when these are published. All figures are for the year ending December 31, 1980, unless otherwise noted. All companies must derive more than 50% of their operating revenues from carrier operations and file public financial statements. Companies primarily engaged in freight forwarding, express shipping, or rental of vehicles are excluded.

[2] Total assets shown as of company's year-end.

[3] Net income for all railroads has been calculated according to generally accepted accounting principles. Figures in parentheses indicate a loss. A double asterisk (**) signifies an extraordinary credit reflecting at least 10% of the earnings shown; a double dagger (‡) signifies an extraordinary charge of at least 10%.

[4] Sum of capital stock, surplus, and retained earnings at the end of the fiscal year. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company.

[5] Year-end total unless followed by a dagger (†), in which case average for the year.

[6] Earnings per share have been computed as described in footnote 6, page 116.

EMPLOYEES[5]		NET INCOME AS PERCENT OF				EARNINGS PER SHARE[6]					TOTAL RETURN TO INVESTORS[8]			
		OPERATING REVENUES		EQUITY					GROWTH RATE 1970-80[7]		1980[9]		1970-80[9] AVERAGE	
NUMBER	RANK	%	RANK	%	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK
71,000†	3	0.4	37	1.8	37	0.70	(2.50)	(2.33)	—		(20.67)	39	(0.33)	35
93,358	2	1.3	32	2.1	36	2.84**	(0.41)	(6.39)	—		13.85	26	3.01	31
70,000†	4	5.8	17	9.8	28	7.13	6.84[11]	2.40[11]	11.50	17	128.07	5	11.38	17
111,000†	1	4.7	21	29.8	6	4.47	1.97	N.A.	—		—		—	
48,974	7	2.0	31	10.0	27	1.13	1.07	(1.38)	—		(29.17)	40	(9.96)	39
56,712†	5	5.6	18	9.2	30	7.55	6.56	1.01	22.28	6	133.50	4	17.47	9
43,000	8	—		—		(3.06)**	2.63	(1.30)	—		(10.12)	37	(8.00)	38
40,000	10	—		—		(0.97)**	2.10	0.39	—		(4.77)	34	(6.93)	37
42,500†	9	9.4	13	13.1	22	10.42	8.08	1.59‡	20.68	9	102.12	7	21.06	5
35,043	11	3.2	29	10.1	26	4.69	6.88	2.33	7.25	21	53.85	17	7.62	24
54,300	6	5.5	19	7.2	32	5.78	6.67	3.98	3.80	22	28.81	23	7.74	23
21,632†	14	7.4	15	18.3	13	10.70	11.68	1.07[15]	25.89	4	105.96	6	30.09	1
23,444†	12	0.6	34	3.0	35	0.75‡	5.06	0.70	0.69	23	4.56	30	8.96	22
12,748	24	0.4	35	0.8	38	0.33	3.35	2.11	(16.93)	25	(11.13)	38	3.43	30
21,292†	15	11.0	9	13.5	20	11.57	10.39	2.86	15.00	13	55.90	16	14.75	13
23,051†	13	14.7	8	14.7	18	7.36	6.36	2.05	13.64	14	57.62	15	13.59	15
14,769	19	2.7	30	9.5	29	2.68	3.03	1.27	7.75	20	26.58	25	7.04	25
11,500	25	—		—		(6.57)	(2.21)	(0.13)	—		(39.94)	42	(2.57)	36
4,500	37	15.1	7	22.6	7	4.02	2.78	0.20**	35.00	3	148.67	3	20.21	6
1,900	44	—		—		(2.44)	(2.42)	1.28**	—		(67.87)	43	(18.99)	40
230†	49	32.2	2	264.1	1	N.A.	N.A.	N.A.	—		—		—	
19,800	17	3.7	26	12.8	23	2.18‡	2.85	0.46	16.83	11	36.60	22	16.92	10
9,917	29	—		—		(2.46)	2.99	0.04	—		(9.64)	36	6.19	28
10,614	26	—		—		(1.35)	(0.87)	0.29	—		11.04	28	(0.20)	33
20,000†	16	4.5	22	4.8	34	N.A.	N.A.	N.A.	—		—		—	
10,379	27	6.2	16	22.2	9	4.71	2.64	0.17**	39.40	2	155.67	2	5.55	29
16,000	18	4.3	23	17.5	14	3.46‡	3.62	0.11	41.18	1	37.65	21	15.54	11
14,095†	21	4.2	25	33.6	5	8.79	0.85**	N.A.	—		351.85	1	—	
14,709	20	—		—		(1.19)	0.70	0.21‡,[18]	—		3.25	31	10.74	18
858	47	29.0	4	112.1	2	N.A.	N.A.	N.A.	—		—		—	
900	46	31.6	3	74.6	4	N.A.	N.A.	N.A.	—		—		—	
13,250	23	—		—		(0.97)	1.45	0.51	—		12.14	27	9.28	20
13,767	22	—		—		(0.43)	1.44	0.67	—		(29.74)	41	(0.33)	34
40†	50	36.6	1	79.2	3	N.A.	N.A.	N.A.	—		—		—	
5,702	34	3.3	28	16.2	15	3.32	2.86	(0.93)‡	—		1.55	33	15.35	12
5,622	35	5.0	20	19.2	11	2.76	2.58	(0.70)	—		47.51	19	14.60	14
10,150	28	—		—		(5.83)‡	2.70	(0.69)**	—		(5.18)	35	12.66	16
3,800	41	15.6	6	21.9	10	7.89	3.89	1.13	21.45	8	28.61	24	18.17	7
1,043	45	0.3	38	8.2	31	1.07‡	0.70	0.46	8.81	19	88.89	9	—	
6,806†	31	9.3	14	22.6	8	4.11	2.48	N.A.	—		89.79	8	—	
8,692†	30	—		—		(84.08)	(31.61)	(2.11)	—		85.94	10	10.58	19
3,283	42	3.4	27	13.5	21	3.58	6.60	1.52	8.94	18	78.18	11	7.00	26
3,900	40	4.2	24	14.2	19	1.24‡	2.28	0.36	13.16	15	43.85	20	9.16	21
4,275	38	9.8	11	11.9	24	7.13	7.41	1.75	15.08	12	76.07	13	17.48	8
619	48	0.4	36	10.7	25	262.00	328.00	86.83	11.68	16	—		—	
6,057	33	—		—		(2.92)‡	(0.21)	1.12	—		2.53	32	0.53	32
4,000	39	9.5	12	15.3	17	6.35	5.12	1.24	17.74	10	76.46	12	22.48	3
4,568†	36	10.8	10	16.1	16	4.48	3.63	0.53	23.79	5	53.15	18	25.13	2
2,320†	43	25.9	5	18.7	12	4.59	3.83	0.63	21.97	7	64.74	14	22.20	4
6,700	32	0.9	33	5.2	33	0.67‡	0.54	1.12	(5.01)	24	8.37	29	6.74	27
1,022,819														

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[7] Average annual growth rate, compounded. No growth rate is given if the company had a loss in 1970 or 1980.

[8] Total return has been computed as described in footnote 8, page 117.

[9] Percentages shown are the returns received by the hypothetical investor described in footnote 8, page 117. The ten-year figures are annual averages, compounded. Where corporations were substantially reorganized—e.g., because of mergers—the predecessor companies used in calculating total return are the same as those cited in the footnote to the earnings-per-share figures.

[10] Formed by merger of Chessie System (1979: No. 13) and Seaboard Coast Line Industries (1979: No. 11) on November 1, 1980.

[11] Figure is for Seaboard Coast Line Industries.

[12] Acquired National Airlines (1979: No. 32) on October 26, 1980.

[13] Acquired St. Louis-San Francisco Railway (1979: No. 37) on November 21, 1980.

[14] Figures are for fiscal year ending June 30, 1980.

[15] Figure is for Mississippi River Corp.

[16] Wholly owned by Standard Oil of Ohio (No. 23 on the FORTUNE 500).

[17] Wholly owned by IC Industries (No. 90 on the FORTUNE 500).

[18] Figure is for North Central Airlines.

[19] Wholly owned by Atlantic Richfield (No. 11 on the FORTUNE 500).

[20] Wholly owned by Exxon (No. 1 on the FORTUNE 500).

[21] Acquired Spector Industries (1979: No. 45) on December 31, 1980.

[22] Figures are for fiscal year ending May 31, 1980.

[23] Figures are for fiscal year ending September 30, 1980.

The 50 Largest UTILITIES (ranked by assets)

RANK		COMPANY	ASSETS[1]	OPERATING REVENUES[2]		NET INCOME[3]		STOCKHOLDERS' EQUITY[4]	
'80	'79		($000)	($000)	RANK	($000)	RANK	($000)	RANK
1	1	**American Telephone & Telegraph** (New York)	125,450,800	50,791,200	1	6,079,700	1	51,407,300	1
2	2	**General Telephone & Electronics** (Stamford, Conn.)	19,720,457	9,978,875	2	477,876	3	4,623,953	2
3	3	**Southern Company** (Atlanta)	11,466,555	3,763,483	6	344,395	6	2,834,736	7
4	4	**Pacific Gas & Electric** (San Francisco)	11,295,203	5,258,899	3	524,770	2	3,726,870	4
5	6	**American Electric Power** (Columbus)	10,951,984	3,756,464	7	348,377	5	3,095,346	5
6	5	**Commonwealth Edison** (Chicago)	10,177,142	3,324,043	12	382,003	4	4,025,015	3
7	8	**Southern California Edison** (Rosemead, Calif.)	7,733,898	3,661,117	8	317,536	8	2,529,577	9
8	7	**Consolidated Edison** (New York)	7,459,681	3,947,165	5	334,676	7	2,883,489	6
9	9	**Middle South Utilities** (New Orleans)	7,334,879	2,342,228	22	195,907	20	1,905,528	15
10	10	**Public Service Electric & Gas** (Newark)	6,724,860	2,994,054	16	281,717	11	2,646,928	8
11	12	**Texas Utilities** (Dallas)	6,552,972	2,174,553	24	297,844	10	2,090,520	12
12	11	**Virginia Electric & Power** (Richmond)	6,491,464	2,119,774	26	241,620	12	2,208,030	11
13	13	**Duke Power** (Charlotte)	6,328,174	1,682,822	32	311,091	9	1,969,140	14
14	14	**Consumers Power** (Jackson, Mich.)	6,276,596	2,303,983	23	223,798	14	1,586,495	17
15	16	**Detroit Edison**	5,741,686	1,812,514	29	188,566	21	1,842,420	16
16	15	**Philadelphia Electric**	5,702,549	2,123,394	25	227,131	13	2,380,416	10
17	18	**Florida Power & Light** (Miami)	5,492,053	2,347,278	21	198,318	19	1,524,285	18
18	17	**General Public Utilities** (Parsippany, N.J.)	5,042,972	1,831,741	28	20,591	49	1,414,223	23
19	21	**Houston Industries**	4,432,938	2,368,583	20	183,981	22	1,498,543	21
20	19	**American Natural Resources** (Detroit)	4,383,491	3,038,546	13	113,219	42	1,051,407	34
21	22	**Pennsylvania Power & Light** (Allentown, Pa.)	4,300,080	885,451	46	179,759	24	1,992,892	13
22	24	**Carolina Power & Light** (Raleigh)	4,241,607	1,075,604	42	161,388	28	1,519,386	19
23	23	**Central & South West** (Dallas)	4,219,589	1,731,327	31	206,077	17	1,366,314	24
24	20	**United Telecommunications** (Westwood, Kans.)	4,205,962	1,911,660	27	177,336	25	1,196,873	27
25	29	**Ohio Edison** (Akron)	3,979,965	1,080,869	40	135,150	33	1,332,482	25
26	28	**Long Island Lighting** (Mineola, N.Y.)	3,917,746	1,276,938	35	205,018	18	1,484,181	22
27	25	**Columbia Gas System** (Wilmington)	3,861,861	3,636,507	9	170,791	26	1,191,455	28
28	27	**Niagara Mohawk Power** (Syracuse, N.Y.)	3,808,819	1,777,115	30	162,639	27	1,508,001	20
29	31	**Northeast Utilities** (Berlin, Conn.)	3,627,742	1,324,545	34	88,752	47	917,244	43
30	33	**Pacific Power & Light** (Portland, Ore.)	3,559,071	975,433	44	133,866	34	967,072	41
31	32	**Union Electric** (St. Louis)	3,552,104	1,077,876	41	154,737	29	1,324,904	26
32	38	**Internorth** (Omaha)[10]	3,485,618	3,037,764	14	211,722	16	1,178.580	29
33	30	**Texas Eastern Corp.** (Houston)	3,314,873	4,272,554	4	219,757	15	1,136,128	32
34	34	**Peoples Energy** (Chicago)[11,12]	3,288,074	3,016,237	15	137,564	32	1,136,778	31
35	41	**Panhandle Eastern Pipe Line** (Houston)	3,228,455	2,472,235	19	183,700	23	998,562	38
36	35	**Continental Telephone** (Atlanta)	3,207,552	1,267,724	36	122,932	36	863,903	45
37	40	**Cleveland Electric Illuminating**	3,094,462	893,566	45	125,383	35	1,007,802	37
38	36	**Baltimore Gas & Electric**	3,073,013	1,226,442	37	139,399	31	1,010,941	36
39	39	**Transco Companies** (Houston)	3,049,250	2,627,787	17	120,256	38	534,728	49
40	37	**Allegheny Power System** (New York)	3,009,892	1,159,502	38	103,748	45	863,217	46
41	26	**El Paso** (Houston)	2,990,737	3,543,436	10	(302,995)	50	436,468	50
42	44	**Arizona Public Service** (Phoenix)	2,928,484	765,760	48	143,290	30	1,169,212	30
43	45	**Gulf States Utilities** (Beaumont, Tex.)	2,925,701	1,005,226	43	117,189	40	763,196	47
44	47	**Public Service Co. of Indiana** (Plainfield)	2,808,877	645,688	50	122,687	37	1,079,401	33
45	42	**Northern States Power** (Minneapolis)	2,735,267	1,159,052	39	111,283	43	1,046,312	35
46	43	**Consolidated Natural Gas** (Pittsburgh)	2,735,230	2,503,054	18	118,488	39	991,876	40
47	46	**Pacific Lighting** (Los Angeles)	2,661,672	3,328,150	11	107,036	44	871,244	44
48	48	**Northern Indiana Public Service** (Hammond, Ind.)	2,539,015	1,366,525	33	72,320	48	715,022	48
49	●	**Illinois Power** (Decatur)	2,467,191	883,370	47	113,562	41	966,276	42
50	50	**Duquesne Light** (Pittsburgh)	2,443,463	689,465	49	92,962	46	995,944	39
		TOTALS	**374,021,726**	**164,237,578**		**15,128,912**		**129,810,615**	

●Not on last year's list.

[1] Assets shown as of December 31, 1980, unless otherwise noted. Only assets of consolidated subsidiaries are included.

[2] Gross receipts from operations during the 1980 fiscal year, including any non-utility revenues from manufacturing, transportation, etc., and revenues from discontinued operations when they are published.

[3] After extraordinary items. Figures in parentheses indicate net losses.

[4] Sum of capital stock, surplus, and retained earnings at the end of the fiscal year. Common and preferred stock of subsidiaries have been excluded. Redeemable preferred stock is excluded when its redemption is either mandatory or outside the control of the company.

[5] Year-end total, unless followed by a dagger (†), in which case average for the year.

NET INCOME AS PERCENT OF EQUITY		EMPLOYEES[5]		EARNINGS PER SHARE[6]					TOTAL RETURN TO INVESTORS[8]			
							GROWTH RATE 1970-80[7]		1980[9]		1970-80 AVERAGE[9]	
%	RANK	NUMBER	RANK	'80($)	'79($)	'70($)	%	RANK	%	RANK	%	RANK
11.8	27	1,044,041	1	8.19	8.04	3.99	7.46	7	1.43	37	6.84	13
10.3	39	200,534	2	2.94	4.20	2.11	3.37	24	6.09	26	6.12	14
12.1	23	27,940	4	2.23	1.51	1.94	1.40	35	20.07	8	1.97	39
14.1	13	27,582	5	3.60	3.55	2.47	3.84	22	0.26	42	3.03	32
11.3	32	26,659	6	2.41	2.29	2.30	0.47	41	6.87	23	4.04	26
9.5	46	16,400	10	2.97	2.51	2.95	0.07	43	3.61	32	1.28	41
12.6	18	14,157	13	3.50	4.56	2.71	2.59	32	15.93	12	5.73	17
11.6	30	23,156†	7	4.67	4.51	2.30	7.34	8	13.63	16	8.14	11
10.3	40	12,406	15	2.01	2.13	1.61	2.24	34	3.62	31	(0.32)	48
10.6	36	12,326	16	3.22	2.85	2.46	2.73	30	0.21	43	4.54	23
14.2	10	14,389	12	3.18	2.45	1.67	6.65	12	14.68	14	0.88	43
10.9	33	10,580	21	1.93	1.63	1.80	0.70	40	12.17	18	0.76	45
15.8	5	19,612	9	3.08	2.88	1.57	6.97	11	16.38	11	5.16	19
14.1	12	12,577†	14	3.08	3.24	2.95	0.43	42	0.58	39	2.53	37
10.2	41	10,789	20	1.75	1.90	1.88	(0.71)	45	0.80	38	3.02	33
9.5	45	9,721†	23	2.00	1.86	1.84	0.84	39	4.00	30	4.39	24
13.0	17	11,084	19	3.94	4.22	1.98	7.12	10	15.06	13	2.88	36
1.5	49	11,490	18	0.34	1.56	1.83	(15.49)	49	(42.00)	50	(5.94)	50
12.3	21	8,768	26	4.71	4.84	2.56	6.29	14	7.05	22	1.07	42
10.8	35	15,987	11	4.89	6.47	3.38	3.76	23	11.98	19	9.18	8
9.0	48	7,702	32	2.64	3.32	1.97	2.97	28	(0.13)	45	4.80	21
10.6	38	6,522	39	2.73	3.06	1.56	5.76	16	6.06	27	4.63	22
15.1	7	8,345	29	2.45	2.27	1.43	5.53	17	1.78	36	0.82	44
14.8	8	29,320	3	2.47	2.63	1.15	7.94	6	(4.76)	48	4.81	20
10.1	42	7,453	35	1.52	1.80	1.84	(1.89)	47	1.94	35	2.12	38
13.8	15	5,669	42	2.53	2.41	1.95	2.64	31	8.16	21	3.01	34
14.3	9	11,509†	17	5.02	4.39	2.80	6.01	15	13.41	17	9.02	9
10.8	34	9,700	24	1.87	2.00	1.48	2.37	33	0.00	44	5.61	18
9.7	44	7,560	33	1.31	1.22	1.16	1.22	36	(0.28)	46	4.18	25
13.8	14	8,436	28	2.53	2.46	1.67	4.24	21	28.70	5	8.48	10
11.7	29	6,914	37	2.10	1.73	1.92	0.90	38	2.96	33	3.04	31
18.0	4	10,510	22	4.70	4.09	1.06	16.06	1	53.76	1	18.96	2
19.3	2	5,500	44	8.72	7.18	2.70	12.44	2	23.61	7	11.58	6
12.1	24	8,250	31	5.01	5.29	2.69	6.42	13	28.05	6	13.59	5
18.4	3	6,800	38	4.86	4.01	1.57	11.96	3	53.16	2	14.19	3
14.2	11	19,679	8	2.13	2.15	1.40	4.29	20	6.25	25	1.89	40
12.4	19	4,991	45	2.26	2.42	2.01	1.18	37	2.31	34	2.97	35
13.8	16	8,672	27	3.64	3.40	2.77	2.77	29	0.43	40	3.55	29
22.5	1	2,594	50	4.72	2.96	1.78	10.24	4	36.64	4	19.54	1
12.0	25	5,720	41	2.59	2.41	1.89	3.20	26	0.31	41	3.61	28
		8,300	30	(6.40)	2.99	1.22‡	—		17.50	10	11.42	7
12.3	22	5,538	43	2.75	2.90	1.73	4.74	19	14.12	15	5.84	15
15.4	6	4,204†	48	2.05	1.74	1.49	3.24	25	18.29	9	0.54	47
11.4	31	4,868	46	3.21	3.79	1.98	4.95	18	(1.33)	47	3.79	27
10.6	37	7,285	36	3.23	3.51	2.41	2.97	27	6.60	24	5.83	16
11.9	26	7,525	34	5.73	6.30	2.61	8.18	5	45.20	3	14.10	4
12.3	20	9,435	25	4.04	3.80	2.03	7.12	9	9.17	20	7.27	12
10.1	43	6,253	40	1.47	1.86	2.12	(3.60)	48	(5.43)	49	(2.04)	49
11.8	28	3,949	49	2.87	2.70	2.89	(0.07)	44	5.64	29	0.65	46
9.3	47	4,464	47	1.82	1.81	2.12	(1.51)	46	5.88	28	3.17	30
		1,773,865										

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[6] Earnings per share have been computed as described in footnote 6, page 116.

[7] Average annual growth rate, compounded. No figure is given if the company had a loss in either 1970 or 1980.

[8] Total return has been computed as described in footnote 8, page 117.

[9] Percentages shown are the returns received by the hypothetical investor described in footnote 8, page 117. The ten-year figures are annual averages, compounded.

[10] Name changed from Northern Natural Gas on March 28, 1980.

[11] Name changed from Peoples Gas on February 1, 1980.

[12] Figures are for fiscal year ending September 30, 1980.

ALPHABETICAL INDEX OF THE "50 LARGEST" LISTS

KEY
B—Commercial-Banking Companies (page 116)
L—Life-Insurance Companies (page 118)
F—Diversified-Financial Companies (page 120)
R—Retailing Companies (page 122)
T—Transportation Companies (page 124)
U—Utilities (page 128)

Most of the figures in this issue of the FORTUNE Direc
were prepared by reporter Anne B. Pillsbury. The fig
on per-share earnings and on total return to inves
were prepared by Claudine Knight.

COMPANY	RANK
ARA Services	R21
ARCO Pipe Line	T30
Aetna Life	L 4
Aetna Life & Annuity	L39
Aetna Life & Casualty	F 2
Ahmanson (H.F.)	F 6
Albertson's	R19
Alexander & Baldwin	T38
Alleghany Corp.	F33
Allegheny Power System	U40
Allied Stores	R27
Allied Van Lines	T39
American Airlines	T 7
American Electric Power	U 5
American Express	F 4
American Financial	F32
American General Corp.	F15
American International Group	F16
American National	L26
American Natural Resources	U20
American S&L Assn. of Florida	F45
American Stores	R 9
American Telephone & Telegraph	U 1
American United Life	L49
AmeriTrust Corp.	B41
Anchor National	L42
Arizona Public Service	U42
Arkansas Best	T46
Associated Dry Goods	R31
Avco Corp.	F19
BP Pipelines	T34
Bache Group	F34
Baldwin-United	F39
Baltimore Gas & Electric	U38
BancOhio Corp.	B46
Bank of New York Co.	B25
BankAmerica Corp.	B 2
Bankers Life	L13
Bankers Life & Casualty	L50
Bankers Trust New York Corp.	B 8
Bekins	T50
Beneficial	F17
Braniff International	T18
Broadview Financial	F50
Burlington Northern	T 6
CSX Corp.	T 3
Capitol Life	L46
Carolina Power & Light	U22
Carter Hawley Hale Stores	R22
Central & South West	U23
Chase Manhattan Corp.	B 3
Chemical New York Corp.	B 7
Chicago, Milwaukee, St. Paul & Pacific RR	T41
Chicago & North Western Transportation	T28
Chubb	F36
Citicorp	B 1
City Federal Savings & Loan Assn.	F41
City Products	R14
Cleveland Electric Illuminating	U37
Columbia Gas System	U27
Commonwealth Edison	U 6
Connecticut General Life	L 7
Connecticut Mutual	L16
Consolidated Edison	U 8
Consolidated Freightways	T13
Consolidated Natural Gas	U46
Consumers Power	U14
Continental	F13
Continental Air Lines	T24
Continental Assurance	L20
Continental Illinois Corp.	B 6
Continental Telephone	U36
Crocker National Corp.	B13
Crum & Forster	F27
DETROITBANK Corp.	B39
Dayton Hudson	R16
Dean Witter Reynolds	F49
Delta Air Lines	T10
Detroit Edison	U15
Dillon Companies	R29
Donaldson Lufkin & Jenrette	F31
Duke Power	U13
Duquesne Light	U50
Eastern Air Lines	T 8
Eckerd (Jack)	R35
El Paso	U41
Equitable Life Assurance	L 3
European American Bancorp.	B27
Exxon Pipeline	T31
Fed-Mart	R49
Federal National Mortgage Assn.	F 1
Federal Express	T40
Federated Department Stores	R10
Financial Corp. of Santa Barbara	F48
Financial Federation	F40
First Bank System	B20
First Boston	F18
First Charter Financial	F 9
First Chicago Corp.	B10
First City Bancorp. of Texas	B23
First International Bancshares	B19
First National Boston Corp.	B17
First National Supermarkets	R40
First Pennsylvania Corp.	B42
First Wisconsin Corp.	B50
Fisher Foods	R38
Florida Power & Light	U17
Food Fair	R45
Franklin Life	L27
Frontier Airlines	T36
General American Life	L40
General Public Utilities	U18
General Re Corp.	F28
General Telephone & Electronics	U 2
Giant Food	R43
Gibraltar Financial Corp. of California	F24
Golden West Financial	F21
Grand Union	R18
Great Atlantic & Pacific Tea	R 7
Great Western Financial	F 8
Guardian of America	L31
Gulf States Utilities	U43
Harris Bankcorp	B30
Heller (Walter E.) International	F20
Holiday Inns	R36
Home Life	L33
Household Finance	F22
Houston Industries	U19
Hutton (E.F.) Group	F23
IDS Life	L41
INA	F 7
Illinois Central Gulf Railroad	T25
Illinois Power	U49
Imperial Corp. of America	F14
Internorth	U32
Irving Bank Corp.	B14
Jefferson Standard	L45
Jewel Companies	R15
John Hancock Mutual	L 6
K mart	R 3
Kansas City Southern Industries	T47
Kemper	F35
Kroger	R 5
Leaseway Transportation	T27
Liberty National	L47
Life Insurance of Virginia	L48
Lincoln National	F12
Lincoln National Life	L17
Loews	F10
Long Island Lighting	U26
Lucky Stores	R 8
Macy (R.H.)	R24
Manufacturers Hanover Corp.	B 4
Manufacturers National Corp.	B48
Marine Midland Banks	B15
Marriott Corp.	R32
Marshall Field	R50
Massachusetts Mutual	L11
May Department Stores	R17
McDonald's	R28
McLean Trucking	T33
Mellon National Corp.	B16
Melville	R26
Mercantile Bancorporation	B49
Mercantile Stores	R46
Mercantile Texas Corp.	B44
Merrill Lynch & Co.	F 5
Metropolitan	L 2
Michigan National Corp.	B36
Middle South Utilities	U 9
Minnesota Mutual	L37
Missouri Pacific Corp.	T12
Montgomery Ward	R11
Morgan (J.P.)	B 5
Mutual Benefit	
Mutual of New York	
NCNB Corp.	
National Bank of North Americ	
National City Corp.	
National Detroit Corp.	
National Life	
National Life & Accident	
National Tea	
Nationwide Life	
Natomas	
New England Mutual	
New York Life	
Niagara Mohawk Power	
Norfolk & Western Ry	
Northeast Utilities	
Northern California Savings & Loan Assn.	
Northern Indiana Public Servic	
Northern States Power	
Northern Trust Corp.	
Northwest Airlines	
Northwest Bancorp.	
Northwestern Mutual	
Northwestern National	
Occidental of California	
Ohio Edison	
Overseas Shipholding Group.	
PSA	
Pacific Gas & Electric	
Pacific Lighting	
Pacific Mutual	
Pacific Power & Light	
Paine Webber	
Pan American World Airways	
Panhandle Eastern Pipe Line	
Penn Mutual	
PennCorp Financial	
Penney (J.C.)	
Pennsylvania Power & Light	
Peoples Energy	
Philadelphia Electric	
Philadelphia National Corp.	
Phoenix Mutual	
Piedmont Aviation	
Pittsburgh National Corp.	
Provident Life & Accident	
Provident Mutual	
Prudential	
Public Service Co. of Indiana	
Public Service Electric & Gas	
RLC Corp.	
Rainier Bancorp.	
Rapid-American	
Reliance Group	
Republic Airlines	
Republic New York Corp.	
Republic of Texas Corp.	
Ravco D.S.	

Rio Grande Industries T44
Roadway Express T22

SAFECO F38
Safeway Stores .... R 2
St. Paul Companies F25
Santa Fe Industries .... T 9
Seafirst Corp. B26
Sears Roebuck .... R 1
Seatrain Lines T20
Security Pacific Corp. B11
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State Farm Life L19
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Tandy R39
Teachers Insurance & Annuity L10
Telecom. T37
Texas Commerce Bancshares B22
Texas Eastern Corp. U33
Texas Utilities U11
Tiger International T17
Transamerica F11
Trans World Corp. .... T 2
Transco Companies U39
Travelers .... L 8
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UAL .... T 1
USAir T26
USLIFE F29
Union Bank B29
Union Electric U31
Union Mutual L34
United Benefit L38
United Parcel Service .... T 4
U.S. Bancorp. B47
U.S. Fidelity & Guaranty F26
United Telecommunications U24
United Van Lines T45

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Variable Annuity Life L43
Virginia Electric & Power U12

Wachovia Corp. B40
Wal-Mart Stores R33
Waldbaum R42
Walgreen R37
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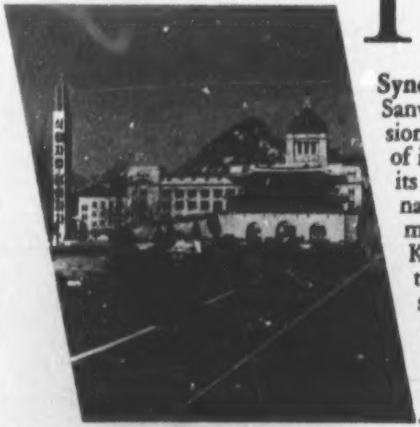
Western Air Lines T23
Western Bancorp. .... B 9
Western Financial F47
Western & Southern Life L21
Wickes Companies R20
Winn-Dixie Stores R12
Woolworth (F.W.) .... R 6

Yellow Freight System T32

Zale R48
Zayre R34

No. 3 in series

SANWA BANK TODAY



Syndicated Loan for Korea Electric Co.
Sanwa Bank again demonstrated its professional capabilities in the demanding field of international loan syndications through its Hong Kong Subsidiary—Sanwa International Finance Ltd.—as one of the lead managers of a US$200 million loan for the Korea Electric Co. Working together with two of the largest U.S. banks, Sanwa responded promptly and effectively to requirements of the Korea Electric Co. for 10-year financing, to pave the way for further expansion of South Korea's nuclear power capacity.

Sanwa Issues SDR-Denominated CD's
Sanwa Bank recently became one of the first Japanese banks to offer SDR-denominated certificates of deposit. Since the SDR is a weighted average composite of major currencies, it provides international money managers with a much more stable form of investment, thus helping to guard against the volatile fluctuations in exchange values of individual currencies which have prevailed in recent years. Sanwa Bank's first SDR CD issue was made in February 1981, for a total value of SDR20 million (approximately US$25 million). This CD issue provides one more example of Sanwa Bank's policy of innovation to satisfy emerging client requirements.

Putting the Emphasis on Customer Service
Sanwa Bank has recently completed a program to place "Quick Service Lobbies" in all its domestic branches. The latest automated tellers' machines and cash dispensers have been installed in these lobbies and they have been designed to provide a feeling of warmth. While emphasizing quick services through computerization, the bank has devoted strong attention to the human element. A new system of "Bank Lobby Consultants" has been introduced to provide more in-depth consulting on financial matters to the bank's individual clients. Through innovations in the areas described above and in other services, the bank has continued to emphasize its customer orientation.

SANWA BANK
Tokyo, Osaka and 237 offices in Japan

TOTAL ASSETS: ¥14,825 billion (US$69.6 billion) **DEPOSITS:** ¥10,910 billion (US$51.3 billion)
LOANS & BILLS DISCOUNTED: ¥8,076 billion (US$38.0 billion), As of September 30, 1980

INTERNATIONAL BANKING GROUP: 1-1, Otemachi 1 Chome, Chiyoda-ku, Tokyo 100 Telex: J22384 Tel.: (03) 216-3111
OVERSEAS NETWORK: New York, Chicago, San Francisco, Los Angeles, Houston, Toronto, Mexico, Panama, Buenos Aires, London, Brussels, Düsseldorf, Frankfurt, Madrid, Bahrain, Hong Kong · Kowloon · Causeway Bay, Seoul, Kuala Lumpur, Singapore, Jakarta, Sydney, and 8 other cities worldwide

The Philippines Veers Toward Crisis
Atari and the Video-Game Explosion
The Man Who Eschewed Quaker Oats

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July 27, 1981

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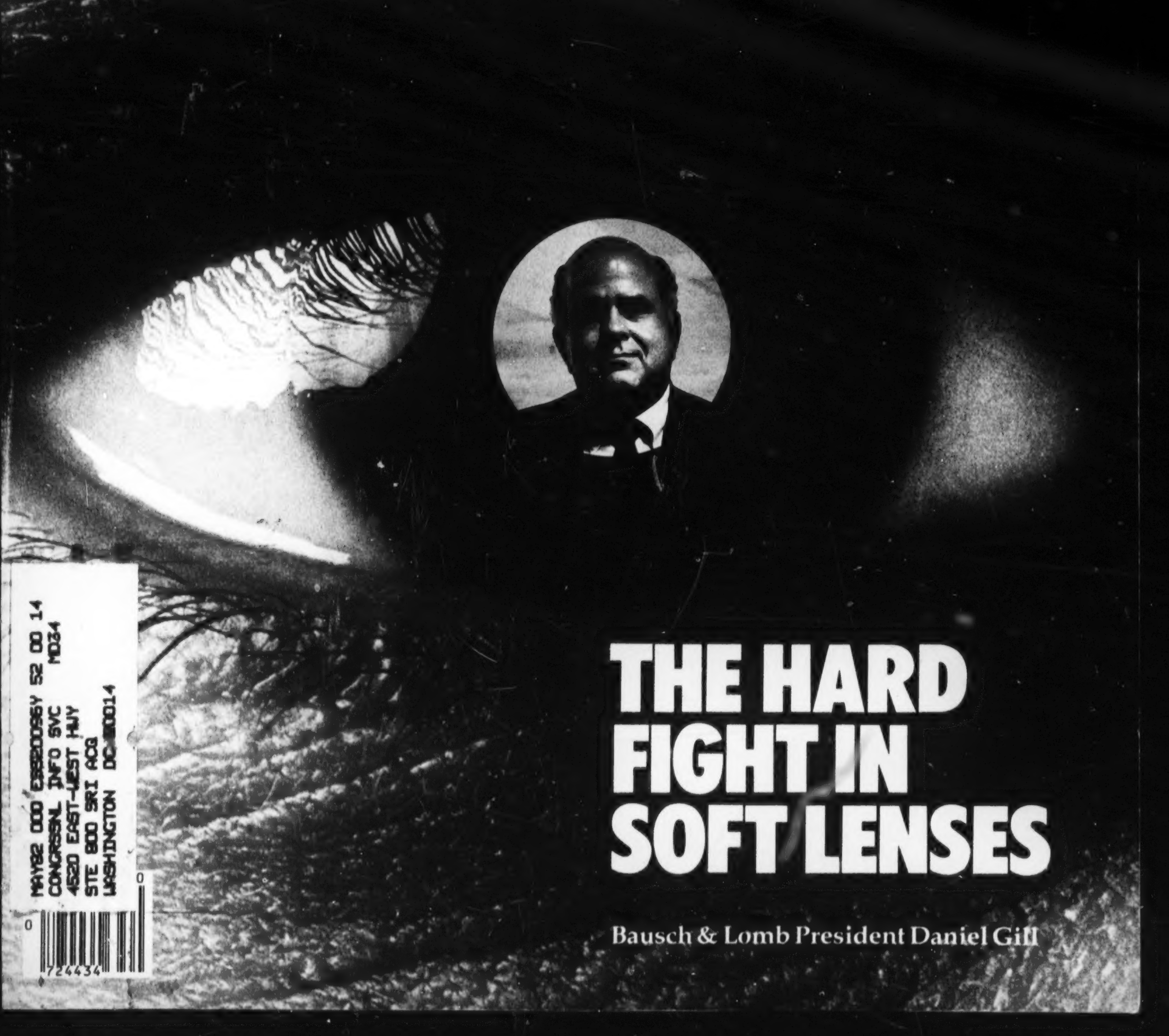

THE HARD FIGHT IN SOFT LENSES

Bausch & Lomb President Daniel Gill

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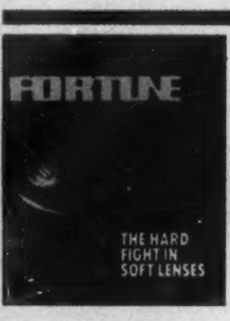

John Marmaras's portrait of Daniel Gill, chief executive of Bausch & Lomb, is set in a photograph of the human eye by Ric Cohn. A story on the increasingly competitive contact-lens business begins on page 56.

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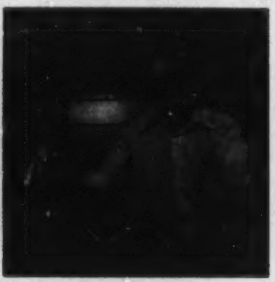

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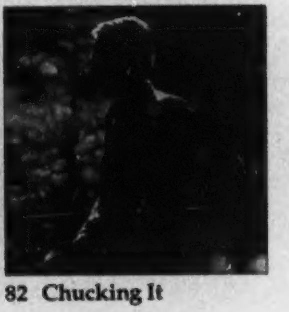
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GROWTH INDUSTRIES

Atari and the Video-Game Explosion

As millions turn into bug-eyed, button-pushing fanatics, profits skyrocket at the Warner Communications subsidiary that ignited the craze.

by PETER W. BERNSTEIN

In the beginning there was Pong, the electronic version of table tennis that sparked the creation of a new industry when it was introduced nine years ago. From the rudimentary origins of Pong—black and white, back and forth—video games have burgeoned into an incredibly varied, full-color phenomenon. They have taken over the arcades where pinball long reigned, and now are penetrating the sanctum of the home. By flicking a switch on a device that hooks up to any TV set, you can tune out *Dallas* and convert your screen into the battleground of Missile Command or Space Invaders.

Controversy swirls around these new contraptions. In Irvington, a New York City suburb on the banks of the Hudson, the village trustees recently debated a resolution that would prohibit the playing of coin-operated video games by anyone under 17. Parents complained that their children were cutting school and squandering their lunch money. Some believe that all the frantic knob twisting and button pressing may be hazardous to your health. *The New England Journal of Medicine* reported last May the appearance of "Space Invaders wrist," a malady caused by "minor ligamentous strain of the joint from repeated and prolonged playing." The cure: 1½ weeks of abstinence.

The psychological and sociological impact of the games may be more enduring, though not necessarily harmful. Sherry Turkle, an associate professor of sociology at MIT who has undertaken a study of all forms of "high-tech rec," observes that the games emphasize "power, macho, aggression, and manipulation." Says Turkle: "Preadolescent boys use them as a way of walling out sexual and peer pressures." The games are not all bad, Turkle believes: "Kids who master them gain confidence in their ability to master complex learning situations and overcome their fear of computers."

Up from near-bankruptcy

Video games have become the fastest-growing segment of the $4.3-billion-a-year toy business, at a time when the market for hand-held electronic games, such as Mattel's Football II, has softened. They are an absolute bonanza to Atari, the world's largest producer of video games and the originator of Pong. Among all the companies in this fast-growing business, only Atari manufactures both coin-operated games for arcades and a video-game player for the home. Though it seems incredible now, Atari nearly went bankrupt shortly after it was founded in 1972 by an eccentric young engineer, and it went through some more hair-raising times after it was bought by Warner Communications in 1976 for $28 million.

But last year Atari took off like a video-screen missile fired from a defending earth station at intergalactic aggressors. Revenues more than doubled, to about $415 million, while operating income quintupled, to $77 million (see chart on page 42). This year promises to be even better. Warner insiders expect revenues to top $900 million and operating profits to approach $200 million.

Atari's zoom comes at a time when Warner can use another big scorer. Its largest business—records and music publishing—has been stagnant since the record market collapsed three years ago. Without blockbusters, Warner's movie business suffered a decline in profits last year to the lowest level since 1977. The company's huge investment in cable television—it operates the country's fifth-largest system with its partner American Express—is not expected to start paying off until the mid-1980s.

But thanks to the mighty thrust of Atari, which accounted for one-third of operating income last year, Warner's overall numbers have kept climbing. Revenues hit $2 billion in 1980 and net income rose to $137.1 million—both about 25% higher than in 1979. The company's stock has turned in an even more dazzling performance, jumping 35% in six months.

Atari was founded by Nolan Bushnell, now 38, an egotistical but exceedingly charming man who is no longer with the

There's not a pinball game in sight at the Westworld arcade in Los Angeles, where video games have taken over. Atari assembles its coin-operated games, like Missile Command and Asteroids, in California and Ireland. Its fast-selling home video-game sets are mostly made in Taiwan and Hong Kong, their cartridges in Texas and Puerto Rico.

Research associate: Peter D. Petre

"The state of the company in the mid-1970s was absolute chaos."

company but has fathered another innovative business (see box on page 44). The son of a cement contractor, Bushnell was raised as a Mormon but has abandoned the faith. His interest in video games traces to his days as an engineering student at the University of Utah, when he spent his spare time playing games on a computer and worked in an amusement park during vacations. Bushnell was not the first to become intrigued with computer games; an MIT student wrote a program for a game called Spacewar in 1962. But nobody had succeeded in developing the idea commercially, and Bushnell's first game, Computer Space, developed in 1971 while he was working as a research engineer in California's Silicon Valley, bombed like all the others.

Bushnell persisted and developed Pong, whose simplicity marked a sharp break from the complexity of other computer games. He had already started a company with a friend and $500 in capital, and in 1972 decided to produce a coin-operated version. About this time he settled on Atari, a term from the Japanese game of go, as the name for his company. It's a polite warning to an opponent that he is about to be engulfed.

Pong revolutionized the coin-operated-games business, whose mainstay at the time was the pinball machine, for it could be played simultaneously by two people. Unfortunately, no sooner had Pong hit the market than dozens of competitors rushed in and snatched most of the business. By 1974 the industry had produced about 100,000 Ping-Pong video games, only a tenth of them made by Atari.

What little money Atari made, it quickly lost. It tried unsuccessfully to expand into Japan, losing about $500,000 in the process. It opened arcades in Hawaii, which turned out to be a drain on its resources. Even though the company dreamed up some imaginative new video games, it could not come up with another winner like Pong. Says Don Valentine, a venture capitalist with Capital Management Services of Menlo Park, California, and one of the early investors in Atari: "The state of the company in the mid-1970s was absolute chaos."

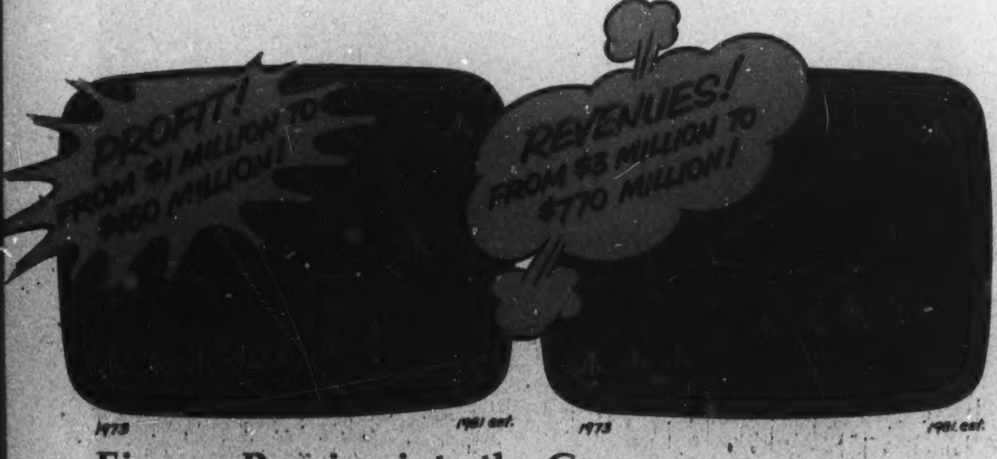
But it was fun. Top management and the engineers would repair to Pajaro Dunes, a vacation retreat on the California coast, for brainstorming sessions that would last two or three days. "It was like having a meeting at a fraternity house, with everybody trying to get their ideas on the board at the same time," recalls Gene Lipkin, a former president of the coin-operated-games division. Between sessions there would be plenty of marijuana and beer. In those days each promising new idea for a game was given a code name, almost always that of a female employee. Says Bushnell: "I remember Arlette the best. Boy, was she stacked and had the tiniest waist. I think she was Super-Pong."

Sears lends a hand

The company's perilous finances didn't stop Bushnell from charging into a big new market. After Pong's initial success it seemed logical to produce a home version that hooked up to a TV set. Magnavox had introduced the first home video game, called Odyssey, in 1972. A home version of Pong, introduced in the fall of 1975, was sold out before it reached the stores. Sears Roebuck & Co. had previously agreed to buy all that Atari could produce that year, about 100,000 games. To make sure it got delivery, Sears helped arrange financing for the company's inventories.

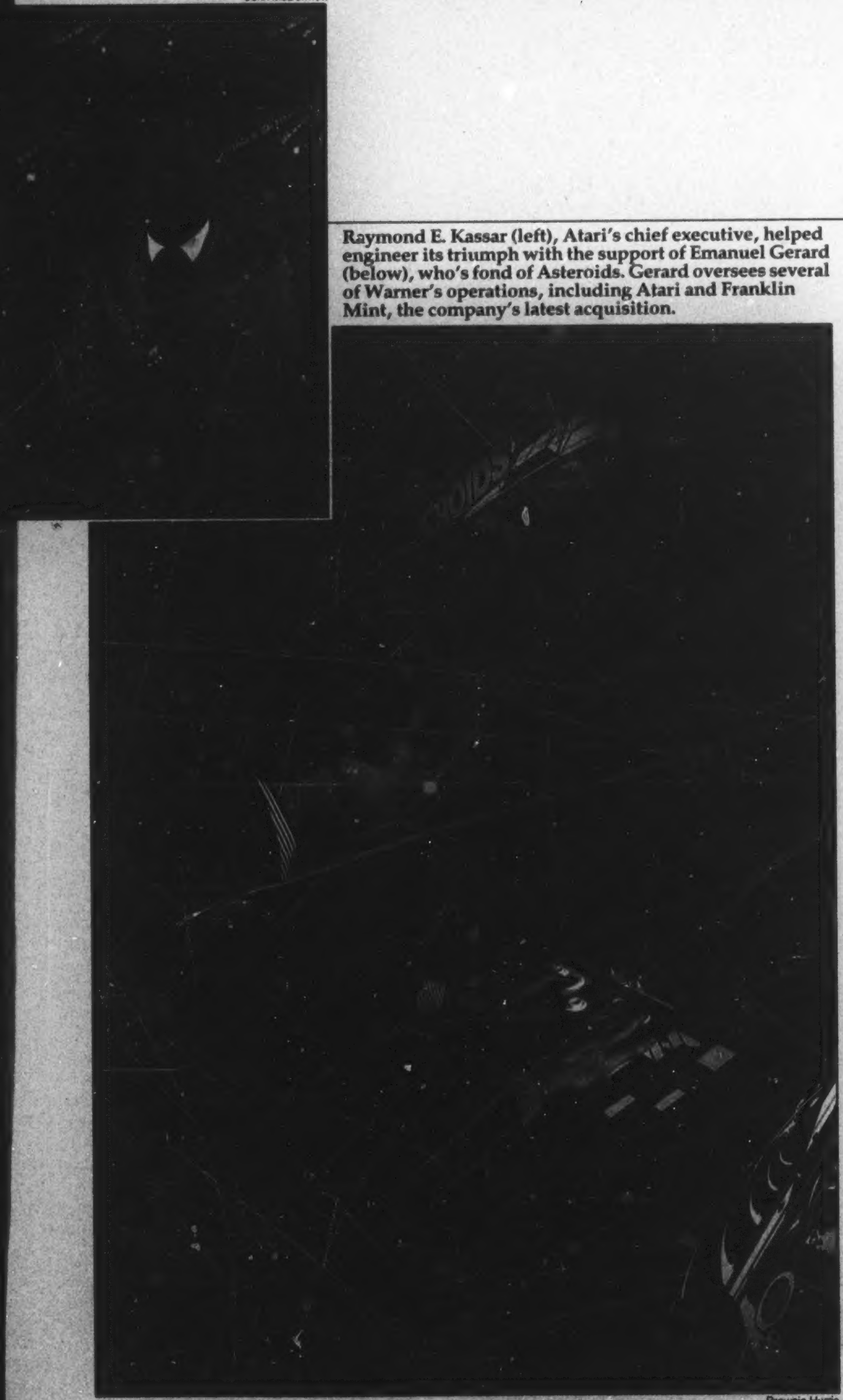
As the help from Sears suggests, Atari was too weak to push aggressively into home video games, then a highly seasonal operation in which the manufacturer was required to carry heavy inventory for most of the year. If Atari was going to continue to grow, it needed a way to raise cash quickly. The solutions were readily apparent: it could go public or sell out to a larger company. The latter course seemed to promise a much larger injection of funds, and the search for a buyer got under way. MCA and Disney took a look at Atari and passed, but Warner Communications jumped.

The deal would not have been made without the enthusiasm and tenacity of Emanuel Gerard. Now one of two men in Warner's office of the president, Gerard's role in the Atari tale has made him a



Figures Roaring into the Cosmos

Atari's takeoff came last year, when sales doubled and operating profits quintupled. The company itself publishes no figures; these numbers are estimates from Richard Simon, an analyst at Goldman Sachs. Simon's figures include Atari's revenues from personal computers—a money-losing line—as well as video games. Warner insiders say his 1981 estimates err on the low side.



John McDermott

Brownie Harris

Raymond E. Kassar (left), Atari's chief executive, helped engineer its triumph with the support of Emanuel Gerard (below), who's fond of Asteroids. Gerard oversees several of Warner's operations, including Atari and Franklin Mint, the company's latest acquisition.

strong future contender for the chief executive's job held by Steven Ross, 53. A self-styled "loudmouth and risk taker," Gerard, 48, won a reputation as the best entertainment-industry analyst on Wall Street before he joined Warner in 1974. Within six months he was named an executive vice president and was charged with overseeing relations with the financial community and looking for acquisitions. Atari was his first deal.

Gerard quickly made up his mind that he wanted the company. Nevertheless, structuring the deal took four months. The thorniest problem arose after a picture appeared in a California newspaper showing Bushnell, owner of just over half the stock, in a hot tub with a lady friend. Shortly afterward, Bushnell's first wife, from whom he was divorced, brought a lawsuit raising questions about whether he had clear title to his shares. Warner's lawyers intervened, and she settled for a small sum. After the deal went through, Bushnell, then 33, wound up with about $15 million in cash and debentures.

Chips to the rescue

Even with Warner's financial muscle, Atari's success was not assured. At their peak in late 1978, loans from Warner to Atari totaled $120 million, but money was not the main problem. By the end of 1977 consumers were becoming bored with so-called "dedicated" video games such as Pong, designed for only one type of action. It was only a matter of time before these games ended up stacked in the closet with the Monopoly board.

A technological innovation came along in the nick of time. Atari's engineers had developed a "programmable" game equipped with a semiconductor chip, called the Video Computer System. Currently priced at about $150, it works like a cassette tape recorder: to change the game one merely inserts a different game cartridge. Each cartridge sells for $25 to $35, and 43 are available.

Despite its versatility, the Video Computer System got off to a slow start. Atari introduced its new device in 1977, just as

NOLAN BUSHNELL'S NEW ACT: SINGING ROBOTS

Can Nolan Bushnell do it again? It's barely 2½ years since he was ousted from Atari, the video-game company he built from scratch. Now he thinks he has an even bigger winner in Pizza Time Theater, a zany combination of fast food and electronics. Since Pizza Time Theater Inc. went public in April at $15 a share, its stock has become one of the year's hot new issues. Bushnell owns just over half the stock, and at the recent market price of $25 his stake is worth about $48 million. Counting his interests in other fledgling enterprises and real estate, Bushnell, 38, figures he's worth about $70 million.

Each Pizza Time Theater is a self-service pizza parlor that doubles as a games arcade. The idea is that while people are waiting for their pizza, they will duck into the arcade and pop quarters into the machines. That combination alone is potent enough to draw crowds, but Bushnell has added a further ingredient: computerized entertainment by pneumatically powered robots.

Sing along with Dolli Dimples

These characters stand on a stage in the main dining area. Every eight minutes the lights dim and the robots come alive. The master of ceremonies is a rat named Chuck E. Cheese, who after a few bad jokes and some idle banter introduces some of his companions. Depending on the restaurant, these could include Madame Oink, a French pig who swoons and croons about Gay Paree; Harmony Howlette, a country-and-western coyote who sings like Loretta Lynn; or 13 others. A few minutes later, as tape-recorded applause breaks out from the rafters and mechanical flags flutter, the brief act is over. Nearby, in another dining room with a quieter atmosphere, Dolli Dimples, a piano-playing hippopotamus, sings oldies for 20-cent tokens.

Pizza Time started out as part of Atari. Bushnell wanted to expand into the game-arcade business but was convinced he needed an added draw. At an industry show in 1974, he picked up a costume for $800 and handed it to his engineers at Atari with the simple instruction that they make it sing and talk. "Live entertainers are expensive," Bushnell explained. "You don't have to pay robots." But two years later, when Chuck E. Cheese emerged from the lab, Atari had been sold. Warner allowed one Pizza Time Theater to open, but was never enthusiastic about the business. Bushnell bought the concept from Warner for $500,000 in 1978. "This is better than making games," he says.

Ever since, Bushnell has been trying to turn Pizza Time Theater into the next McDonald's, though he has a way to go. Sales reached $11.4 million in 1980, when the company achieved its first profit of $177,000, or 7 cents a share. The robots are packing them in at 44 Pizza Time Theaters in 12 states, about half of which are company-owned and the rest franchises. Bushnell expects to have 1,000 restaurants by 1985. Not long thereafter, he predicts with a straight face, Chuck E. Cheese will be better known than Mickey Mouse.

Nolan K. Bushnell shares a pizza with Chuck E. Cheese.

John McDermott

dealers were stocking up on dedicated games for the Christmas season. But neither product moved, and Atari faced considerable competition. Fairchild, Bally, and RCA had all introduced programmable home video-game machines, and during the next year nobody's systems caught on. Admits Gerard: "We built a lot of inventory in 1978 and we sold only a small fraction of it."

The chaotic market conditions mirrored the situation inside Atari. A conceptualist with a disdain for detail and a *bon vivant*, Bushnell never intended to oversee Atari's operations after the sale to Warner, even though he had stayed on in a top post. "I'm not a very good chief operating officer," he concedes. "I like to develop the strategy, not to work it." Soon after the company was sold, Bushnell began showing up only rarely for work.

Shouts at the budget meeting

Overseeing the daily chores was left to Joseph Keenan, now 39, an easygoing man who was then Atari's president. Admits Keenan, who himself has become a millionaire from the Warner deal: "After we sold the company we were significantly less motivated to bust our humps." Gerard pressured Keenan to hire people who could get the job done. "They really had no manufacturing, no sales, and no advertising or marketing expertise," Gerard huffs. "Everything but research was lacking. It was amateur night in Dixie."

Events were moving toward a showdown, which was precipitated by Bushnell. At the annual budget meeting in New York in 1978, he scathingly attacked the business. "I screamed and shouted a lot," he quietly says now. Bushnell's harshest words were reserved for the Video Computer System. He thought it was overpriced, and wanted Atari to unload its inventory at cut-rate prices.

Gerard countered that this was a time to press on, not to retrench. He figured that if Atari slashed the price of the home game system at this early stage, its future as a product would be destroyed. The argument got into personalities.

THE TOP VIDEO-GAME MAKERS

COMPANY	VIDEO-GAME SALES (1981 projections)	HOTTEST GAME	
Atari, Sunnyvale, California, a subsidiary of Warner Communications (home and coin-operated games).	**$710 million**	**Asteroids**	Spaceship blows up drifting asteroids ar battles flying saucers.
Midway Manufacturing, Franklin Park, Illinois, a subsidiary of Bally Manufacturing (coin-operated games).	**$220 million**	**Pac-Man**	Yellow creature gobbles dots while bein pursued through maze by monsters.
Mattel, Hawthorne, California (home games).	**$175 million**	**NFL Football**	Two eight-man teams battle on a video gridiron.
Williams Electronics, Chicago (coin-operated games).	**$125 million**	**Defender**	Spacecraft battles alien ships trying to abduct friendly planet's inhabitants.
Stern Electronics, Chicago (coin-operated games).	**$100 million**	**Scramble**	Spacecraft penetrates multiple defense systems and destroys enemy base.
Sega Enterprises, Los Angeles, a subsidiary of Gulf & Western (coin-operated games).	**$90 million**	**Astro Blaster**	Spaceship battles enemy squadrons; voi warns when its laser weapons overheat.

Video games have come up fast, and two of the leading U.S. producers were barely in the business a year ago. Williams Electronics, a maker of pinball machines, introduced its first video game only last November. Stern Electronics, a privately held company that makes jukeboxes as well as pinball machin the other newcomer. Midway Manufacturing helped sta video-game boom when its coin-operated Space Invade peared in 1978, but Pac-Man is now its most popular game.

Bushnell, according to a participant at the meeting, told Gerard he was "nuts." Gerard told Bushnell he could no longer expect "to rule Atari by the divine right of kings." One onlooker summed up the brouhaha: "I don't think anyone can yell louder than Manny Gerard."

Over lunch the day after the budget meeting, Bushnell and Keenan, then co-chief executive officers, agreed to a reorganization plan that Gerard had proposed several weeks earlier. Bushnell would give up the chairmanship and stay on as a director and Keenan would move up to chairman. The new chief executive would be Raymond Kassar, now 53, who had joined the company 11 months earlier. Bushnell began to waver when he got back to California. Learning that Bushnell was about to renege, Gerard called an emergency meeting of the executive committee of Warner's board, which ousted Bushnell. "King Pong," as he has been called in the press, was dethroned.

Brooklyn-born of Middle Eastern descent, Kassar is a meticulous man with a passion for discipline—the polar opposite of Bushnell. When he came to Atari, he knew nothing about the video-game business. For 25 years he had worked at Burlington Industries, rising to executive vice president and gaining a reputation as a turnaround artist. Passed over for the presidency in 1974, Kassar went into business for himself, importing cotton apparel from Egypt. But he confesses, "I missed the corporate world." Even so, he hesitated when offered a job at Atari running the division that produced home video games: "I was almost indignant. I had an $800-million responsibility at Burlington." Nevertheless, he signed on. To help gain an understanding of electronics, he read an article in *Scientific American,* which he then kept in his desk for easy reference.

Ties instead of T-shirts

Kassar set about changing Atari. "I knew I had a consumer-marketing company and I had nobody who understood the consumer business," he says. He brought in new people experienced at working in large organizations. He also established formal reporting procedures and financial controls, set specific sales and marketing goals, and tightene curity measures to protect confidenti formation. Kassar put his stamp o corporate culture as well. "Things kind of casual here," he recalls. "F didn't work very hard." He made it that he expected people to be at w 8 A.M. sharp, to answer the p promptly, and to wear ties and jacke stead of T-shirts.

Kassar generated considerable r ment. "Ray is very structure-oriente very elitist," says former Atari exe Gene Lipkin. "If he didn't like wha looked like, he wouldn't talk to yo time, most of the key executives the Bushnell regime left. Kassar als tagonized some engineers who had treated royally under Bushnell. A newspaper story quoted Kassar co ing engineers to operatic divas, T- emblazoned with the words "I'm ju other high-strung prima donna Atari" became popular in the comp research labs.

Kassar's discipline got results. than 100,000 unsold Video Compute tems jammed Atari's warehouses

Like razor blades, cartridges are more profitable than the devices they click into.

he took over, but 1979 was a total sellout. Last year retailers snapped up all the home game players Atari could produce. This year the company is rationing its product; analysts estimate it will sell about 2.8 million game players and 18 million cartridges.

Atari's takeoff owes as much to Kassar's marketing talents as his organizational skills. After the delivery problems of 1977, Kassar knew that it was crucial that retailers sell whatever they had on their shelves in 1978. During the last seven weeks of the year he launched a $6-million advertising campaign, a tactic that Atari had resisted until then. At the Consumer Electronics Show the following January, retailers were clamoring for more product. But Kassar's biggest coup came a year later. The home game player had been perceived as a Christmas item, but Kassar was convinced it could be turned into a year-round product. To prove his point, Atari introduced four new game cartridges in late January. Says Michael Moone, the 35-year-old president of the consumer division: "It started a run on the business."

The first blockbuster

One of the fastest-selling cartridges is Space Invaders, an adaptation of the popular coin-operated game designed by the Japanese company Taito and manufactured in the U.S. by Bally's Midway subsidiary. Over one million have been sold. A blockbuster of that magnitude is significant because, like razor blades, cartridges are more profitable than the devices they click into. One analyst, Richard Simon of Goldman Sachs, estimates that Atari's operating margins on its cartridges are more than 50%. No wonder Atari has been introducing new ones almost monthly.

Kassar doesn't claim all the credit for the Video Computer System's successful blitz. He is quick to point out that he was given an "extraordinary product." It's also true that Atari faced no serious competition. RCA and Fairchild had quit the video-game business early, and in 1980, after the market heated up, Bally bailed out. That left only Magnavox, which never attacked the market with gusto even though it had been the earliest entrant. Plagued by technological glitches, production snafus, and management upheavals, Mattel was not able to introduce its Intellivision until late 1979. All 200,000 that the company could make last year were sold, giving Mattel about 10% of the market, compared with Atari's 80%. This year Mattel hopes to double or triple its market share, but Raymond Wagner, president of the toy division, says that "we will certainly not catch up to Atari."

As Kassar was struggling with the home-games division, Atari's coin-operated games began to score big in the arcades. In 1980 Atari countered Bally's Space Invaders with Asteroids, which proved almost as powerful a magnet for the young. By the end of last year 70,000 had been shipped. Atari's revenues from coin-operated games soared from $52 million in 1979 to about $170 million last year. Now, even as Warner's movie division is bringing you *Superman II*, Atari is introducing Asteroids Deluxe.

The obvious question about Atari's smashing success is: How long will it last? Video games might just be the latest toy-industry fad. In the meantime, the profitability of video games is attracting plenty of new competitors. In the past two years, at least half a dozen companies have started making coin-operated video games. Japanese companies, which have invented some of the most successful games, have established manufacturing facilities in the U.S.

Atari has internal problems too. The entrepreneurial craziness that was one of its prime assets is gone, and the company has been slow to develop new game systems. The biggest new thrust is into personal computers, an already crowded field where Atari is one of the few companies aiming its product at the home market. (See "The Coming Struggle in Personal Computers," FORTUNE, June 29.) Analysts estimate that Atari's computer division lost about $10 million last year on $20 million of sales.

Critics say that the company's foray into personal computers has diverted management time and resources from video games. One complaint is that Atari has not developed a more sophisticated version of the Video Computer System for customers who want to trade up. Atari's only response has been a remote-control model that costs an extra $100. Says a buyer for one of the country's leading retailers: "They've greased the way for Mattel."

Here comes Pac-Man

Still, the glory days for Atari may just be dawning. At the end of 1980, only 3.5% of American households had a video-game player. This year the proportion should rise to 8%, and Gerard says, "We're trying to figure out how to push it up to 50%." Foreign markets, which Atari just began to penetrate last year, could prove even more rewarding.

Though Atari has not been flooding the market with new products, it has been spending heavily on research. The company is mum about what's on the drawing boards, but one possibility is adding a voice track to home video games to augment the present beeps, hums, and explosions. Among the games themselves, Atari is sure to have some more big winners. A home version of Asteroids will have twice the computer memory of other cartridges, and this is bound to make the game more challenging. Atari has lined up the home-market licenses for Pac-Man and Galaxian, two highly successful coin-operated games.

The enthusiasm of all those millions of people locked in video combat in arcades and homes certainly shows no sign of waning. Part of the appeal of video games is that they involve skill. You strive to run up ever higher scores before you are defeated, your cities destroyed, or your spaceship atomized. The average game is over in three minutes, but the longest Asteroids game on record—played on June 13 and 14 by David Jannise, 19, at Rainbow Roller Rink in Beaumont, Texas—lasted for 36 hours and 29 minutes.

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The controversial Gouletases of American Invsco with Evangeline's husband, Hugh Carey

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CONDOMANIA'S FIRST FAMILY

Co Rentmeester took the cover photograph of (from left) Victor N. Goulet, Evangeline Gouletas-Carey, Hugh Carey, and Nicholas S. Gouletas on the rooftop of Lake Point Tower in Chicago. A story on the company founded by the New York governor's wife and in-laws starts on page 106.

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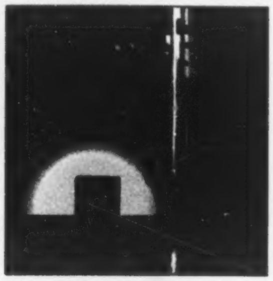

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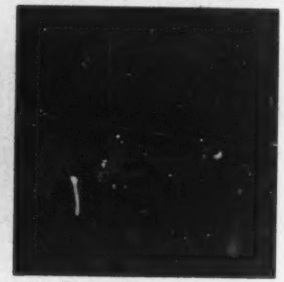

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TROUBLE

Tampons After the Shock Wave

It has altered the industry's competitive landscape, and the tremors continue.

by PAMELA SHERRID

Every manufacturer of consumer goods has to secretly fear that the morning's newspaper will blame his product for grievous accidents or a dread illness. That fear became a shock wave of reality for the U.S. manufacturers of tampons last summer, when the use of their product was linked with a newly identified and sometimes fatal disease, toxic-shock syndrome (TSS). The jolt has dramatically transformed the competitive landscape of the $1-billion-a-year menstrual-products industry.

Compare the tampon manufacturers' plight to that of diet-soda bottlers, for instance. It's as if healthy Tab drinkers had suddenly and mysteriously begun keeling over, glass in hand, instead of just being warned that heavy intake of cyclamates had induced cancer in laboratory mice. And unlike carmakers, who can count on drivers' accepting some degree of risk behind the wheel, the makers of tampons were selling a product that almost everybody assumed to be completely safe.

The big corporate loser has been Procter & Gamble. Amid a storm of publicity, the venerable Cincinnati company withdrew its new Rely tampon from stores last September after government researchers reported that over 70% of toxic-shock patients in one study had worn that single brand. P&G's top scientists dispute that finding today more than ever, but last fall the company took a $75-million write-off on its Rely business.

Each of the four other big tampon manufacturers—Tampax, Playtex (a unit of Esmark), Johnson & Johnson, and Kimberly-Clark—has had to respond to different dangers and opportunities. Playtex, No. 2 in tampons, suffered sharply reduced sales, but it at least still has all its products on retail shelves.

The most incongruous winner

As often with bad tidings, the three remaining companies have positively benefited from the misfortune of the other two. Because of TSS, many women have switched from tampons to napkins, and that brought gains for J&J and Kimberly-Clark. Their smallish shares in the tampon market are overbalanced by their dominance of the sanitary-napkin business, which they practically own between them. As Kimberly-Clark's President Robert Ernest puts it: "Because of our mix, anything that's good for the napkin market has got to help us."

The most incongruous winner is Tampax, which as a single-product company seemed most gravely endangered by the TSS scare. Staid, conservative Tampax, No. 1 in tampon sales, had lost a large portion of its market share to the P&G juggernaut. But in the wake of TSS, Tampax got a second lease on life. To the dismay of its competitors, it has successfully capitalized on its image as the old, familiar, and (by implication) safer product.

Tampax was the lure that brought giant consumer-goods companies into the tampon market in the first place. It pioneered the first commercially successful tampon in 1936 and for the next three decades had the business virtually to itself. By the 1960s, as changing life-styles converted more and more women to the advantages of internally worn protection, Tampax's earnings were growing 15% a year, and return on equity reached an astonishing 40%.

Profits like those were bound to attract competition. The marketing muscle of bigger companies was released when the National Association of Broadcasters lifted the ban on TV advertising of menstrual products in 1972. By 1978, Playtex held a 30% share, thanks mostly to its introduction of a deodorant tampon. J&J had less success—only a 10% share—with its o.b. brand, acquired along with a German company purchased in 1974. Unlike Tampax and Playtex, which come packaged in cardboard and plastic inserters, o.b. has no applicator at all and is put into place with a finger—a method that proved to have considerably less appeal for American women than for their European sisters. In 1979, a separate divi-

Research associate: Grant F. Winthrop

Dan Kozan

sion of J&J decided to join the applicator crowd and began test-marketing a plastic-applicator deodorant tampon called Assure, which clearly took aim at Playtex.

The flawed marvel

P&G, meanwhile, was gathering its formidable strength for its first entry into the menstrual-products field—or, as it is called in the industry, the "catamenial" field (from the Greek for "monthly"). P&G's key to superior product performance in tampons was to improve absorbency. As Tampax's own lawyers said in a recent filing with the Food and Drug Administration, "The Tampax tampon was a marvel, but when fully saturated, it would leak." P&G solved that problem by developing what it called "a revolutionary kind of tampon." Instead of the traditional wad of cotton and rayon, P&G created a unique tea-bag construction and filled it with polyester sponges and superabsorbent synthetic fibers.

The absorbency sweepstakes was on. Soon other manufacturers added thirsty fibers—either carboxymethyl-cellulose or modified rayon—to their own products. Tampax went along with that, but in general it responded sluggishly to the heightened competition, spending as little as possible on marketing and nothing on diversification. "We didn't think we needed it," Tampax President Russell Sprague says ruefully.

To make matters worse, the industry's unit sales of tampons slowed down from their earlier growth rate of 8% annually. Two factors were at work: women didn't have to change superabsorbent tampons as frequently, and the napkin makers had introduced slimmer pads that adhered to underpants and did away with cumbersome belts.

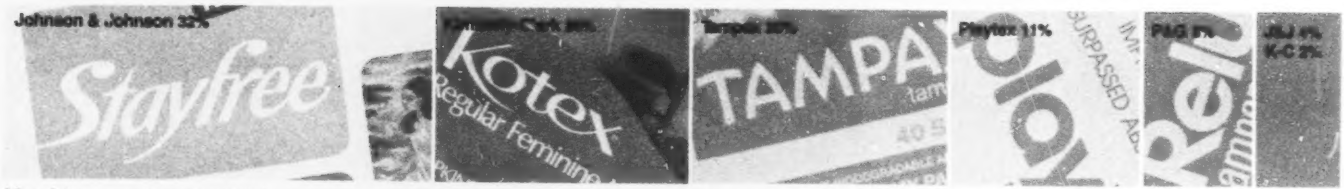
The competitive struggle in the tampon market reached its highest pitch in early 1980, when Rely finally went into national distribution. It had an extremely successful introduction, winning nearly 20% of the U.S. market in less than six months. Tampax's share slid from 53% to 43%. The other manufacturers suffered even larger proportional losses in their shares.

The singling-out of Rely

Then the shock wave hit. In May 1980, the Center for Disease Control reported increasing incidence of a life-threatening disease occurring primarily among menstruating women. One month later it added that a statistical correlation had been discovered between the use of tampons and the onset of toxic shock, though

The Shake-up in Market Shares

Before



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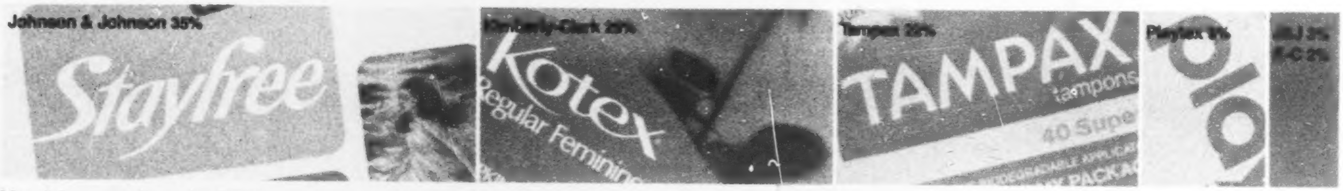


For makers of menstrual products, history divides into before and after the toxic-shock trauma. This chart shows shares of the total menstrual-products market, napkins and tampons together, in August 1980 and in April 1981, the most recent month for which figures were available. Rely disappeared. Tampax gained. Johnson & Johnson and Kimberly-Clark, with only small shares in tampons, fared very well in the switch to napkins.

"no particular brand of tampon is associated with unusually high risk." In September, after more research, Rely was singled out as "an increased risk," even though "cases of TSS have occurred with tampons produced by all five of the major U.S. tampon manufacturers."

As each bit of information added to the growing concern, the Food and Drug Administration, which regulates tampons, huddled with the manufacturers. After the news about Rely, FDA officials first met alone with P&G executives, then informed representatives of the other companies at a meeting in Washington. Their response, according to one participant, was "*very* quiet."

The focus on Rely did not dispel the worries of the other companies. "Sure, there was relief it wasn't us," recalls John Walcott, a member of J&J's executive committee. "But that was immediately followed by the thought: Was Rely only the first? Why not o.b. tomorrow?" Sprague of Tampax says, "It would have been a lot nicer from our point of view if the problem had been completely Rely."

The FDA's regulatory mission was clouded because no one could demonstrate that tampons alone caused toxic-shock syndrome. Even today the relationship between tampons and the disease remains a mystery, though scientists do know that a bacterium is the causative agent. (See the box on page 128.) All the same, faced with a media disaster and fearing a government recall, P&G voluntarily took Rely off the market and agreed to mount a print and broadcast campaign urging women to return already purchased tampons for a refund.

Tampax breaks ranks

The reaction in the marketplace was convulsive. Almost immediately tampon sales dropped 20%. Sales of napkins picked up accordingly. The tampon share of the total catamenial market, which had worked its way up to 46%, or $460 million, plummeted to 35%, a $110-million drop. Says Peter Larson, senior vice president for marketing at Kimberly-Clark: "Some women simply stopped using tampons; another large group followed medical advice and alternated tampons during the day with pads at night." The proportion of women using tampons at any time during their menstrual period dropped from 70% to 55%.

Again, Tampax went its own way. It broke ranks by running advertisements on TSS at the same time P&G was making its Rely refund offer. "Your health is important to us," the Tampax ad proclaimed. Though the FDA had encouraged the manufacturers to engage in public-education activities about TSS, it was less than pleased with Tampax's language. "Your advertisement, by emphasizing the role of Rely tampons, inaccurately downplays the role of Tampax and other tampon brands," an FDA official wrote in a chiding letter. In the same ad, Tampax encouraged women to change tampons frequently and to wear napkins at times, but it ignored what the FDA considered "essential advice": that women could reduce their risk of getting TSS by not using tampons at all.

In October, the first full month after the Rely withdrawal, Tampax's share of the tampon market leaped from 43% to 56%. That gain represented much more than a proportionate share of the Rely vacuum. Recognizing what one Wall Street analyst called "the opportunity of a lifetime," Tampax continued to spend heavily on promotion throughout the fourth quarter of 1980. All the other companies cut back on ad expenditures, or stopped advertising entirely, because of the uncertainty about toxic shock. Joel Smilow, president of International Playtex, says dourly, "In retrospect, Tampax's strategy worked very well."

Tampax evoked more ire from its competitors by alone refusing to put on the outside of its packages the voluntary TSS warning label that the Food and Drug Administration had requested as an interim measure. (Tampax did enclose information about TSS inside its packages.) In January, two J&J executives visited the FDA

continued

to complain about this inequity. The clear implication for the shopper, they said, was that Tampax was safer than other brands still on the market. They pressed for mandatory labeling and threatened to take their voluntary label off if Tampax didn't put one on. J&J soon went ahead and did just that.

Back to "natural"

The market environment following the Rely withdrawal was unfriendly to new tampon products. J&J seemed indefinitely blocked from bringing Assure into national distribution, which was some solace to Playtex. But Tampax was in the unique position of being able to bring out, or back, a product that was old and new at the same time. Three years earlier it had stopped selling its "regular" style because of lack of demand. With both scientists and consumers questioning whether Rely's artificial ingredients were responsible for the TSS outbreak, Tampax resurrected a new "natural" 100% cotton Original Regular style, backed with a $5-million ad budget. "No super-absorbent synthetic materials ... no petrochemical sponges," say the ads. Super-absorbents, though, quietly remained in other Tampax styles.

Giving up on waiting for a quick and conclusive answer to the TSS mystery, the other tampon manufacturers have gradually resumed advertising. But Tampax has managed to hold onto its post-Rely market share, which makes it the only tampon manufacturer that did not suffer a decrease in unit sales as a result of TSS. The company seems determined to avoid past mistakes. It boosted ad spending for the first six months of this year nearly 50% above last year and has plans to slick up its packaging and strengthen its sales force. "P&G must have taught us something," says Sprague.

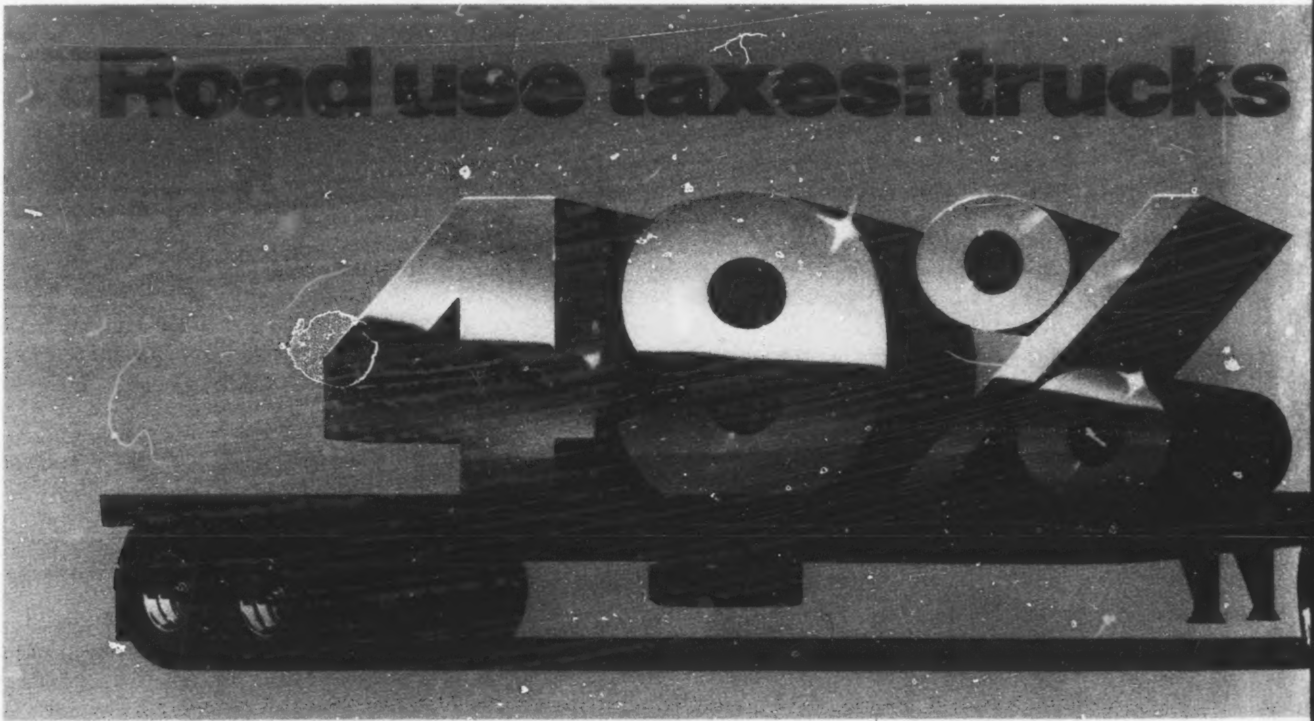
At best, though, Tampax can look forward only to a breathing spell. Early sales data show that the new Original Regular cannibalizes other Tampax styles. Playtex is launching a new ad campaign that promises to be more hard-hitting than the rather subdued messages with which it broke its advertising silence.

Over the longer term, everybody else has to be concerned about what P&G will do. Before retiring this year, Chairman Edward Harness promised that the Rely debacle did not mean the end of P&G in the tampon business. Rely's introduction was the culmination of over 20 years of P&G research in catamenials. When is the earliest that P&G could go back in? Says Geoffrey Place, P&G's head of R&D: "We would have to know with reasonable certainty what is causing TSS."

Keeping 898,000 cartons

To hasten scientific progress, P&G has a staff of researchers working in-house and has committed nearly $2 million to research at 14 institutions. Observes Hercules Segalas, a veteran P&G-watcher at Drexel Burnham Lambert: "P&G is not going to let Rely die in peace."

P&G insists that it will have no control over the findings of the academic scientists. If, in the end, the statistical correlation that indicted Rely is backed up with some specific causal connection, then P&G will probably be out of the tampon market for many years, forced way back to the drawing board. If Rely is cleared, then the company might reenter the market quickly. In fact, P&G is still warehousing 898,000 cartons of Rely packages. But most observers think it unlikely that



P&G would ever use the Rely name again.

The outcome of the research under way will affect not only the timing of P&G's reentry, but also just about everything else the other manufacturers have to worry about, including the product-liability suits being brought against them by TSS victims. So far, an estimated 400 suits are either filed or in preparation, mostly against P&G but also against each of the other companies. That number will probably go much higher, with a potential liability reaching into the billions of dollars.

Too rare to be found

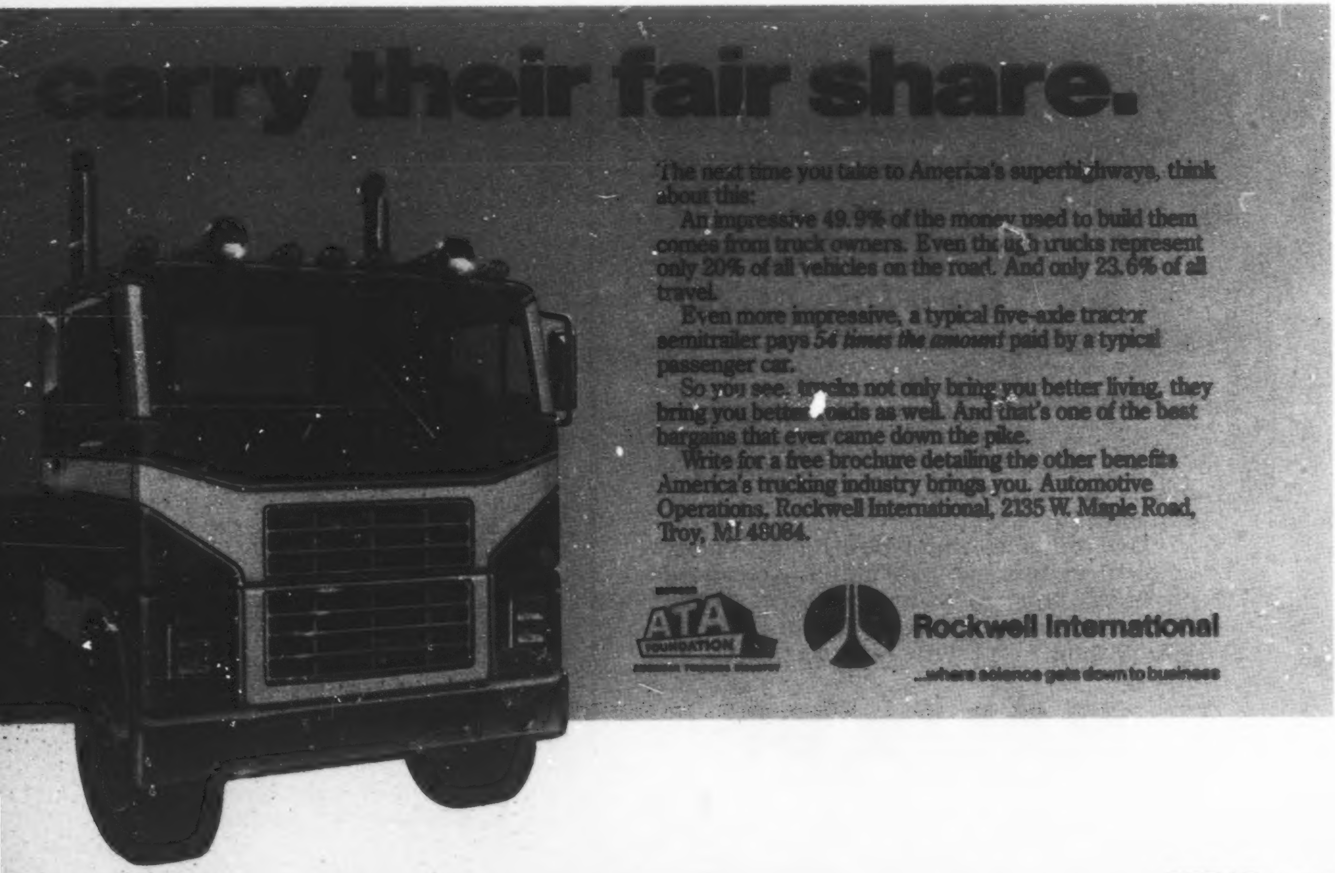
The plaintiffs' lawyers are questioning the adequacy of the tampon manufacturers' pre-market testing, homing in on those new super-absorbent materials. Thanks to a loophole in a 1976 amendment to the Food and Drug Act, all the companies avoided filing any testing information on new tampons by claiming that the products were "substantially equivalent" to existing tampons. Naturally, the manufacturers say that their new tampons nonetheless went through every laboratory and clinical test they could dream up.

They also claim that testing could not have discovered TSS anyway, because it is so rare—the reported incidence at the peak last summer was 15 out of 100,000 menstruating women annually. The FDA agrees. It might be expected to, since it has been taking heat from consumer groups for not having kept a closer watch on tampons. (It also has been named as a codefendant in some suits.) But even Minnesota epidemiologist Michael Osterholm, who has collected data linking TSS to high absorbency levels, says, "There is no way in the world the industry could have been aware of this disease."

In many states, however, negligence is irrelevant—it doesn't matter whether the manufacturers knew or could have known about TSS. The victim merely has to prove that a defect exists in the product and that the defect is causally related to the injury. This is where the current research on TSS comes in. Right now it would be difficult for a victim's lawyer to establish the specific defect in a Rely or Tampax tampon that caused TSS—nobody knows that for sure. Some lawyers are waiting for the causation of TSS to become clearer before they file their suits, while others feel that the circumstantial evidence against tampons is already strong enough.

Product-liability litigation is often resolved case by case: the tampon makers could settle some, win some, and lose others. Though they don't like to talk about it, all the companies most likely have some form of product-liability insurance. (P&G says its coverage is "substantial.") Typically a very big company has a product-liability policy that leaves it responsible for, say, the first $500,000 on every case. Big bites out of Tampax would hurt badly, because it is much smaller than its major competitors. Its 1980 sales of $203 million amounted to about 4% of J&J's, for instance.

The competitive struggle is being fought against a background of persistent uncertainty about TSS. It is not even clear whether the numbers of new TSS victims have been declining or holding steady. The Center for Disease Control says that reported cases in the U.S. peaked last year in August and September at about 120 per month, dropped sharply in the autumn, and have now hit a plateau of about 50 cases per month. But others,



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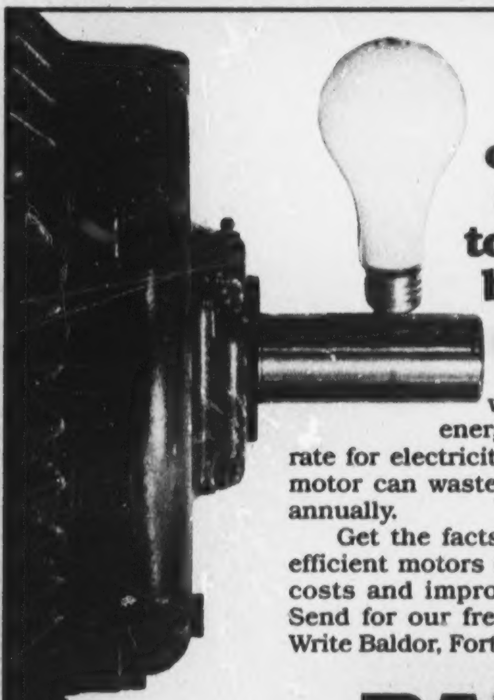

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P&G says the peak was publicity.

including P&G, say that the peak in reported cases was a result of the publicity surrounding TSS at the time of the Rely withdrawal, and that there has not been any actual decrease in cases since then. Minnesota is the only state that has maintained an active surveillance effort for TSS victims since early 1980, and it has reported a constant level of about eight cases a month all that time.

A momentous question

For the industry, this question of what has happened to incidence levels is momentous. If the number of TSS cases has dropped sharply since last fall, then one working assumption is that Rely was a large part of the problem. But if the disease continues at the same level as before, as the Minnesota evidence suggests, then tampons currently on the market come under strong suspicion. Minnesota researcher Osterholm thinks he knows why the number of cases has not fallen. His study of TSS victims in three states indicates that users of high-absorbency tampons run a greater risk of contracting TSS than other tampon users. "When Rely disappeared," Osterholm says, "women merely switched to other high-absorbency brands and picked up the increased risk."

The FDA is the immediate referee for this debate. It will decide about a mandatory warning label in the next few months, and is considering whether the apparent decline in TSS cases has obviated the need for one. It is also contemplating mandatory ingredient labeling that would help women keep away from super-absorbents if they wanted to. But neither the FDA nor the Center for Disease Control thinks Osterholm's findings are compelling enough without further research to justify requiring the industry to reduce tampon absorbency.

With news of TSS no longer on the front pages, the tampon market is now showing tentative signs of recovery. Sales in March and April inched upward to about 14% below March-April 1980. "We feel the market has definitely turned," says Tampax's Sprague. Playtex has found

continued

"A death warning could have a drastic effect."

in recent market research that women still want absorbency in a tampon as much as they ever did.

For the FDA, trying to decide whether to require a warning label, the slight sales recovery of tampons poses a conundrum. Have women returned to tampons because their memory of the TSS publicity has faded? Or are they willing to accept the risks tampons offer in exchange for their benefits? Statistically, after all, the degree of risk is very small compared with that of smoking even one pack of cigarettes a day. The tampon manufacturers have found that about 95% of all menstruating women are "aware" of TSS, but no one seems to have asked if the awareness includes the understanding that TSS was not just a "Rely disease."

Among the manufacturers, Tampax is most strenuously opposed to a mandatory warning label. The company's lawyers have said that "a death warning could have a drastic effect on Tampax." A permanent warning label probably would at least have the effect of discouraging first-time tampon users.

Stress in waiting

Ultimately, nothing else will have as big an impact on catamenial sales as the answers science will provide to the puzzle of TSS. The waiting has taken its toll on executives in the menstrual-products industry, all of whom have more stress lines than they had a year ago. It has been a wrenching experience to have their products involved in the deaths of apparently healthy young women. And the lack of answers in the accumulating data has added a heavy burden of frustration and uncertainty. "It's obvious that the statistics were telling us something," Walcott of J&J says wearily. "But to this day we still don't know what."

Some executives in the sanitary-napkin business are confident that the market has permanently changed. "Women coming back to napkins are finding much better products than existed ten years ago," says Larson of Kimberly-Clark. "I think a significant number will stay." Leo

continued

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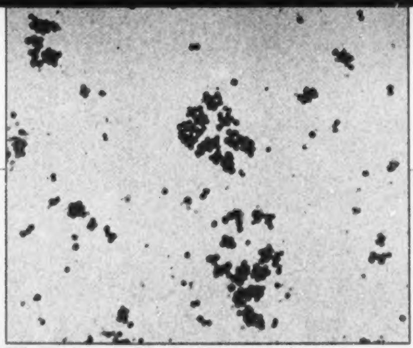
WHAT'S KNOWN ABOUT TOXIC SHOCK—AND WHAT'S NOT



The culprit: *Staphylococcus aureus*

The toxic-shock mystery is a classic detective story, still unsolved. Capturing the culprit is no problem: it is pictured above, magnified about 300 times—*Staphylococcus aureus*, a common bacterium that causes serious infections. It was found in the vaginas of almost all female victims of toxic-shock syndrome (TSS). The puzzle for dozens of scientific sleuths is why suddenly last summer this particular bug, in association with tampons, created an outbreak of a newly identified disease.

Staphylococcus aureus does not cause toxic shock by invading the body through the bloodstream. Instead, it colonizes one location—the vagina in the majority of female cases or boils and other localized infections in men and children as well as women—and pumps out a virulent poison. This toxin then enters the bloodstream and produces toxic shock's devastating symptoms: high fever, diarrhea, vomiting, and rash, followed by a rapid drop in blood pressure and vital-organ failure. Victims get very sick very fast—"like being hit from the rear by a Sherman tank," recalls one former TSS patient.

About 6% of those who are hit die. Most others seem to recover completely, but some survivors lose tips of fingers or toes or suffer lasting mental impairment. In convalescence, the skin on the palms of the hands and soles of the feet peels off in distinctive leathery scales.

Missing linkage

Much of what scientists know about TSS still comes from epidemiologic evidence—detailed statistics on the occurrence of the disease. Since the beginning of 1980, there have been about 900 reported cases and 50 deaths. About 98% of TSS patients are menstruating women who were wearing tampons when they became ill. Women under 30 have about three times as much chance of getting the disease as older women. Epidemiology provides a picture of who gets the disease and who doesn't, but gives only fuzzy hints as to why. Other branches of research are still trying to figure out what specific concatenation of factors increases the risk of TSS among tampon wearers.

When government and industry scientists first learned of the statistical association between tampons and toxic shock last summer, their initial hypothesis was that some tampons were contaminated with bacteria. The answer, however, was not that simple. The FDA sampled thousands of tampons from stores and scrutinized the factories and warehouses of the manufacturers without finding *Staphylococcus aureus*. The next step was to see if any specific tampon materials, including the innovative materials in Rely, encouraged the growth of the bug. Again, nothing.

Stymied in the effort to find an immediate connection between tampons and toxic shock, some researchers began to look more closely at the bug itself. Was a new variant of *Staphylococcus aureus* responsible for the outbreak of toxic shock?

The tentative answer is yes. Two scientists working independently, Patrick Schlievert at the University of Minnesota and Merlin Bergdoll at the University of Wisconsin, have isolated newly identified toxins from strains of *Staphylococcus aureus* taken from toxic-shock patients. Strains from other sources tend not to produce these toxins. Other researchers are now going back to decades-old frozen specimens to see if any of these older bugs produce the specific TSS toxins. If they come up empty-handed, chances are good that the *Staphylococcus aureus* causing toxic shock is a new variant.

Bergdoll's other important discovery is that some women are more susceptible to toxic shock than others. In his control group of women who had never suffered toxic shock, many already had in their blood the specific antibody to the TSS toxin—as a result of earlier staphylococcal infections or conceivably of unrecognized mild cases of TSS. In contrast, few TSS patients had the antibody at the onset of the disease, and most were unable to produce it even after being sick. This finding helps explain why a full 30% of women who have had TSS once have a recurrence. It also opens the possibility that someday women could undergo a test to check their susceptibility to TSS.

The nature of the tampon connection remains elusive. It is known, however, that tampons cause subtle chemical changes in the vagina. Scientists are undertaking to find out more about those changes to see if they—or any particular tampon materials—enhance the production of toxin by *Staphylococcus aureus*.

Many of the other theories about the link between TSS and tampons—and super-absorbent tampons in particular—remain little more than speculation. Two years before the Rely withdrawal, a gynecologist financed by Kimberly-Clark discovered that super-absorbent tampons cause micro-ulcerations of the vaginal wall. These micro-ulcerations might help a toxin to pass into the bloodstream. Intuitively many people think that because super-absorbent tampons can be worn longer without leaking, they provide a better breeding ground for bacteria. But epidemiological evidence indicates that TSS victims changed tampons as frequently as other women. In any case, if mucosal damage is a factor in TSS, then frequent tampon replacement could encourage rather than discourage the disease.

Strange data

Scientists are hoping to find an animal in which they can induce toxic shock, but so far they haven't. Few animals have a menstrual cycle similar to women's and those that do are unhappy about wearing tampons. Strange bits of knowledge are accumulating. "Baboons seem less likely to pull tampons out than gorillas," reports Bruce Dan, a TSS researcher at the Center for Disease Control. Michael Osterholm, a Minnesota epidemiologist, has a hunch that tampon usage at night is a factor. He is intrigued by a finding of Danish researchers that the flow of blood to the vaginal wall increases during sleep.

All this flailing around for connections suggests what a subtle, elusive, and complex disease TSS has turned out to be. One thing is for sure, says Osterholm. "Any one scientist hoping to unravel toxic shock would have to be a physiologist, a clinician, a microbiologist, and an expert in multiple regression analysis."

Shapiro, a Chicago market researcher, has found that many former tampon users like J&J's successful new Sure and Natural Maxishield, an extremely thin superabsorbent pad introduced nine months before the Rely withdrawal. "Sure and Natural was in the right place at the right time," says J&J's John Walcott.

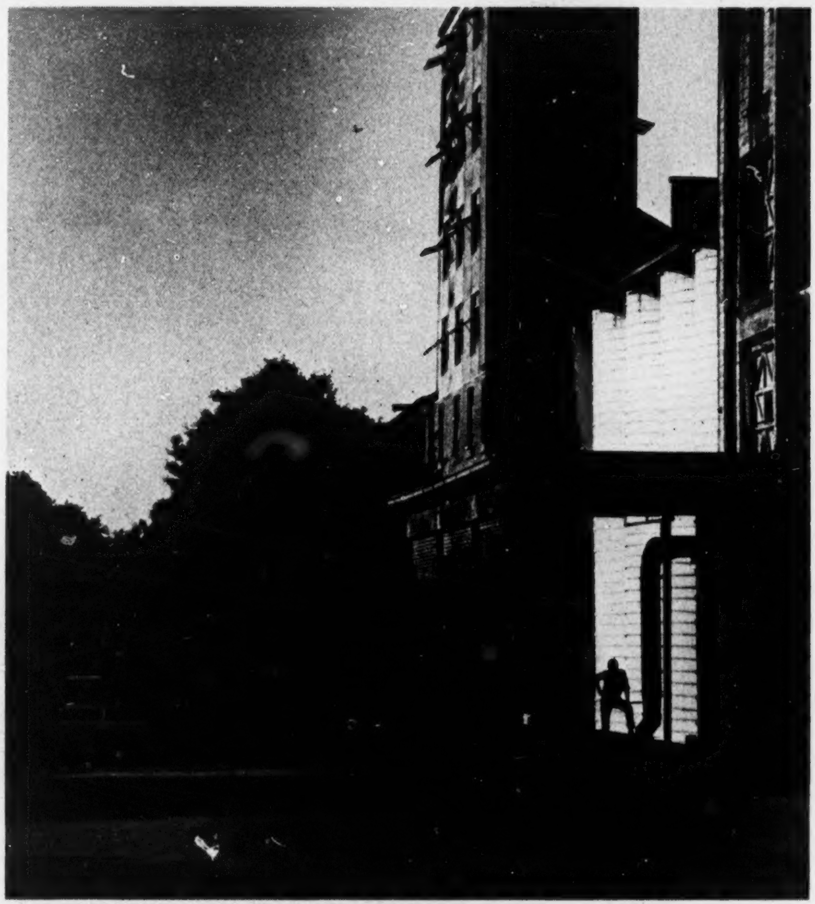
All the manufacturers are rethinking their strategies. Some industry observers, such as Edward Jones of Paine Webber, believe that because of new use patterns, "longer-term advantage will go to companies that can successfully offer women a full sanitary-protection regimen—tampons and various absorbency pads—all under one brand name." Kimberly-Clark is debating right now whether to revamp its Kotex napkin and tampon advertising to stress this full-line approach.

The napkin makers actually hope to increase sales by persuading women to wear a thin napkin every day of the year. Even P&G may decide not to wait for solutions to the mysteries of TSS before entering the napkin business. Segalas of Drexel Burnham thinks P&G will begin to test-market a pad within a year.

A different kind of scare

The two tampon manufacturers who haven't sold napkins—Tampax and Playtex—are trying hard to get into that market. Tampax recently introduced the Incognito pantyshield in Europe. Playtex is currently test-marketing the Shaped to Fit pad in three U.S. cities. "It's more important than ever to find the right formula in that category," says Playtex's Smilow.

If tampons were to follow the sales trend evident in other consumer scares—with canned tuna and botulism in 1963, with dried milk and salmonella in 1967, and with diet soda and cyclamates in 1970—then tampon sales might get back to their prior level in early 1982. But with the much greater emotional impact of TSS and the lingering uncertainty regarding the disease, it may take a long time for the tampon market to recover completely—if it ever does.



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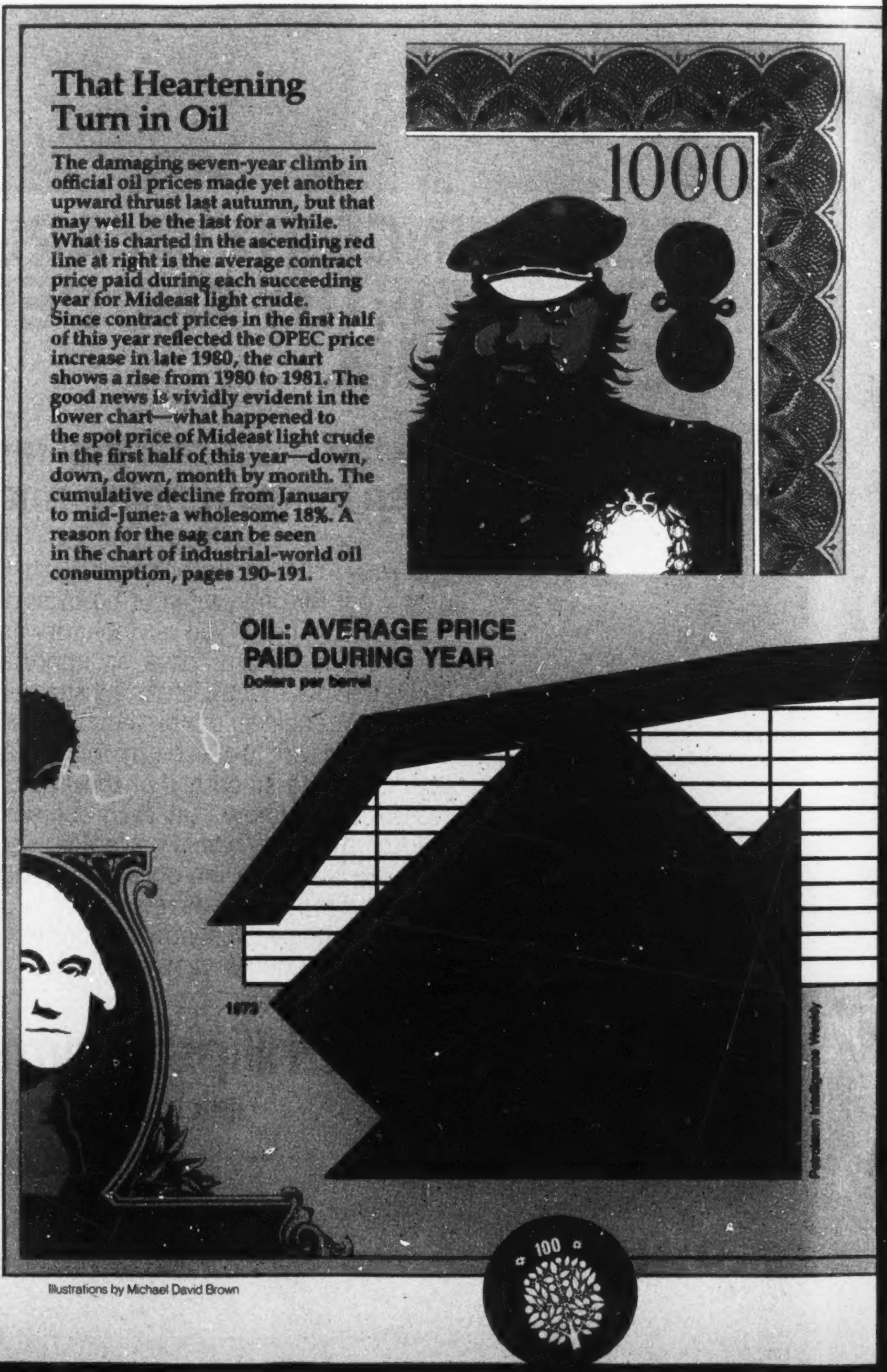
Brighter Tomorrows

The last several months have brought unexpectedly cheery news for the world economy. The price of oil, a bully and window-breaker during most of the past seven years, has turned soft. The softening—mainly a result of reduced oil consumption in the industrial world—suggests the possibility that over the next couple of years the real price of oil will plateau or even decline.

War or revolution in the Middle East could quickly dim the outlook. But if economics is allowed to prevail in the years just ahead, we should at least escape traumatic price increases of the kind that smote the world economy in 1973-74 and 1979-80. Amid the generally gray economic landscape of mid-1981, the prospective liberation from oil-price shocks and drags provides hope that the world economy will be able to shake off stagflation. High and periodically surging oil prices have been a depressant; stable or declining oil prices should be a tonic.

On the somber side, the past year or so has witnessed an intensification of protectionist sentiment in the U.S. and Europe, mainly directed against that export overachiever, Japan. Stresses will probably worsen in years ahead as Japan gains competitive advantage in more and more high-technology lines, and as the other Asian growth economies described in the preceding article push to widen their shares of export markets.

The clogging of international trade with overt and subtle protectionist devices would retard growth and heighten tensions. But if the industrial nations can avoid getting themselves into that trap, prospects are that the world economy will be considerably more robust and less precarious over the next several years than it has been since OPEC ended the good old days of cheap energy.



That Heartening Turn in Oil

The damaging seven-year climb in official oil prices made yet another upward thrust last autumn, but that may well be the last for a while. What is charted in the ascending red line at right is the average contract price paid during each succeeding year for Mideast light crude. Since contract prices in the first half of this year reflected the OPEC price increase in late 1980, the chart shows a rise from 1980 to 1981. The good news is vividly evident in the lower chart—what happened to the spot price of Mideast light crude in the first half of this year—down, down, down, month by month. The cumulative decline from January to mid-June: a wholesome 18%. A reason for the sag can be seen in the chart of industrial-world oil consumption, pages 190-191.

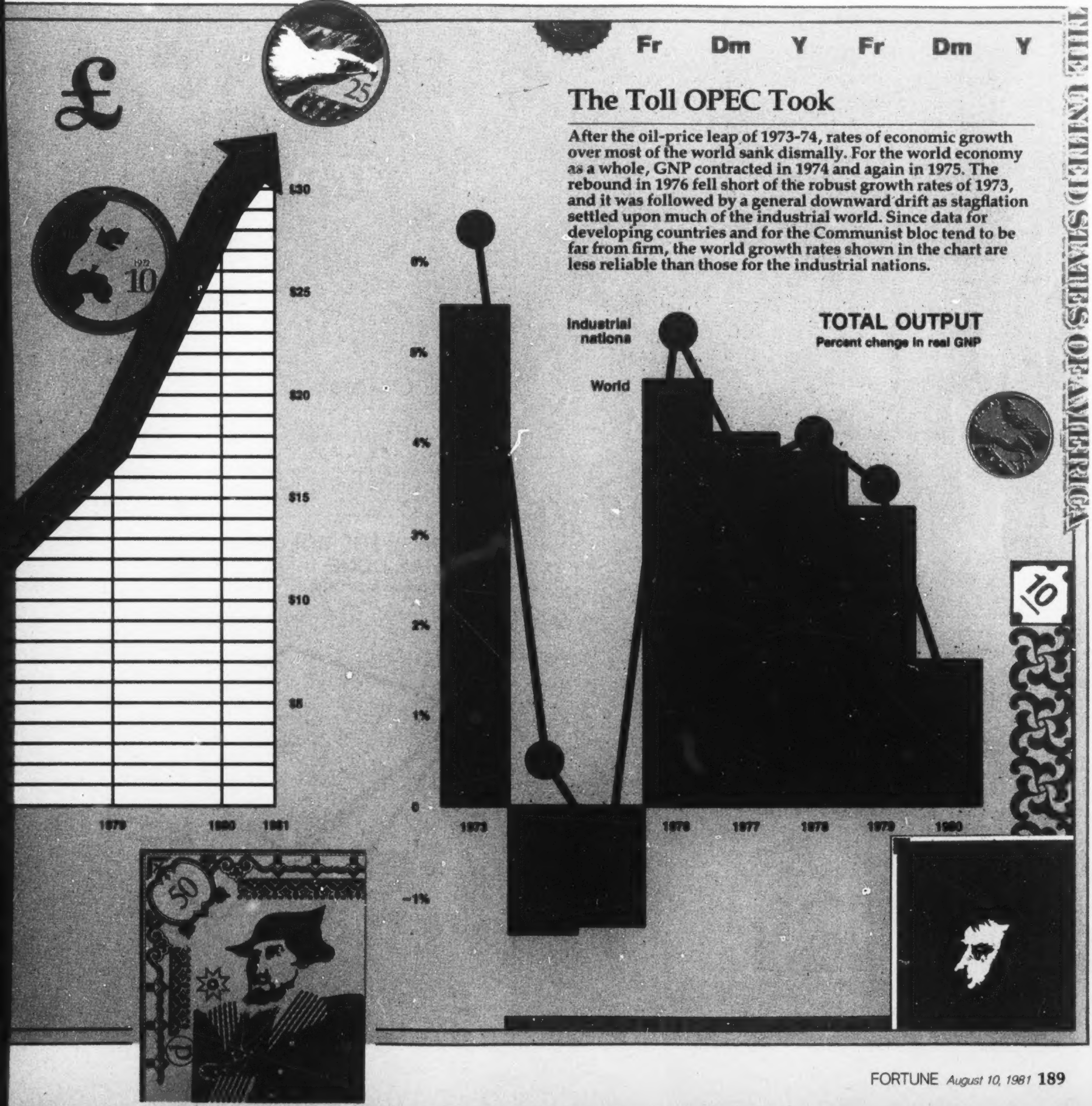
OIL: AVERAGE PRICE PAID DURING YEAR

Dollars per barrel

Petroleum Intelligence Weekly

Illustrations by Michael David Brown

for the World Economy



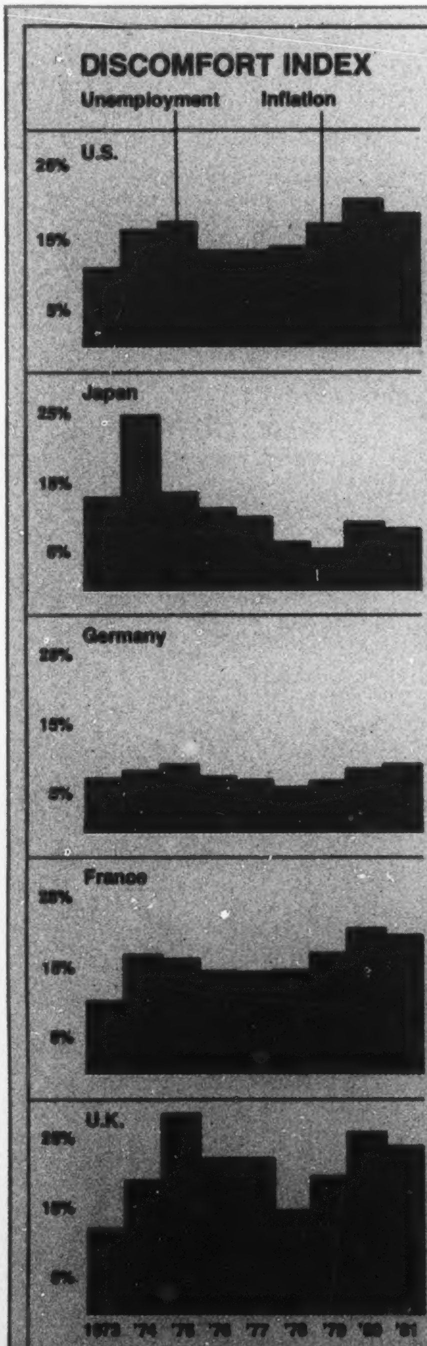
The Toll OPEC Took

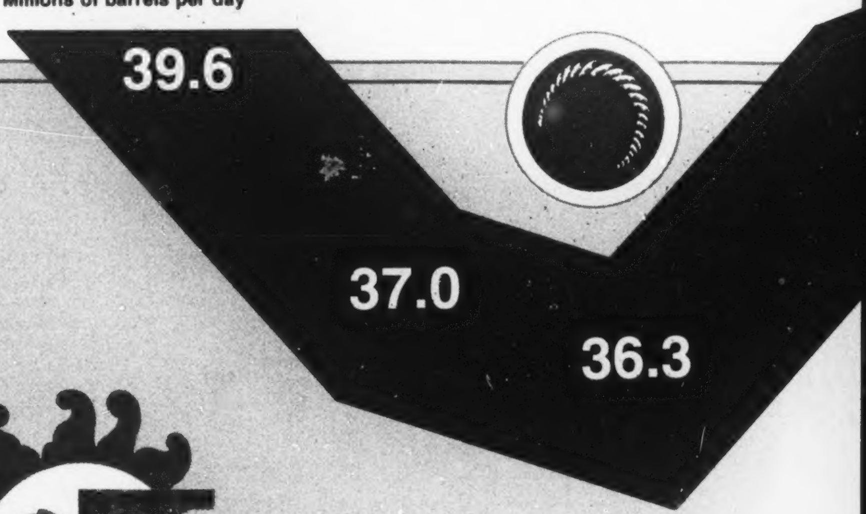
After the oil-price leap of 1973-74, rates of economic growth over most of the world sank dismally. For the world economy as a whole, GNP contracted in 1974 and again in 1975. The rebound in 1976 fell short of the robust growth rates of 1973, and it was followed by a general downward drift as stagflation settled upon much of the industrial world. Since data for developing countries and for the Communist bloc tend to be far from firm, the world growth rates shown in the chart are less reliable than those for the industrial nations.

Fr
Dm
Y
Fr
Dm
Y
THE UNITED STATES OF AMERICA
£
25
1972
10
$30
$25
$20
$15
$10
$5
1979
1980
1981
TOTAL OUTPUT
Percent change in real GNP
Industrial nations
World
6%
5%
4%
3%
2%
1%
0
−1%
1973
1976
1977
1978
1979
1980
10
50

Unequal at Coping

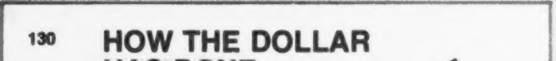
These five industrialized nations show striking differences in ability to cope with post-1973 stresses. Germany has done best at restraining inflation, Japan best at bringing a high rate way down. France's leftward swing and Britain's unrest were foreshadowed by rising unemployment.





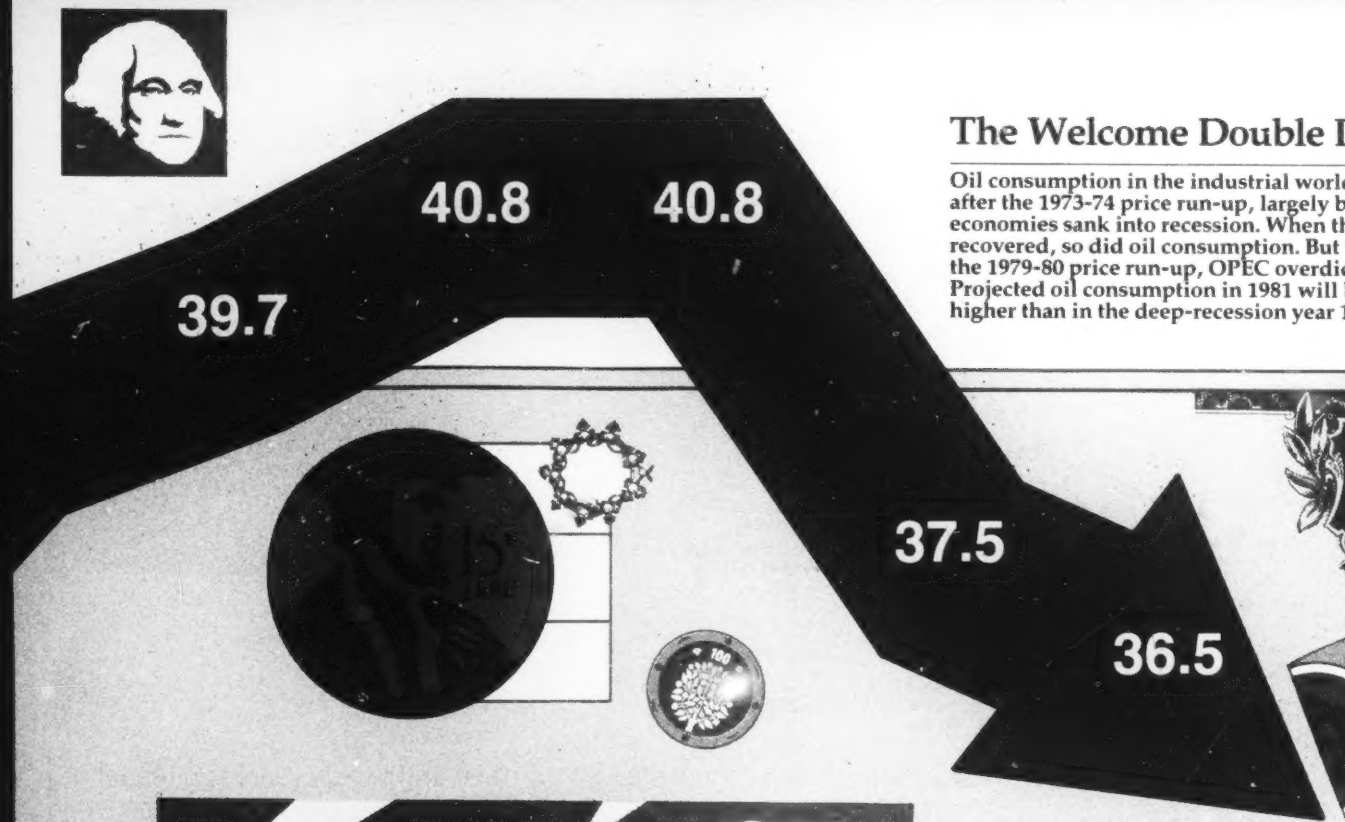
The Dramatic Reversal

The dollar, droopy for so long, has made an extraordinary rebound. High interest rates have helped. So has the tone of the new Administration. Europeans aren't happy about the turnaround; it raises the costs of their oil imports, paid for in dollars.



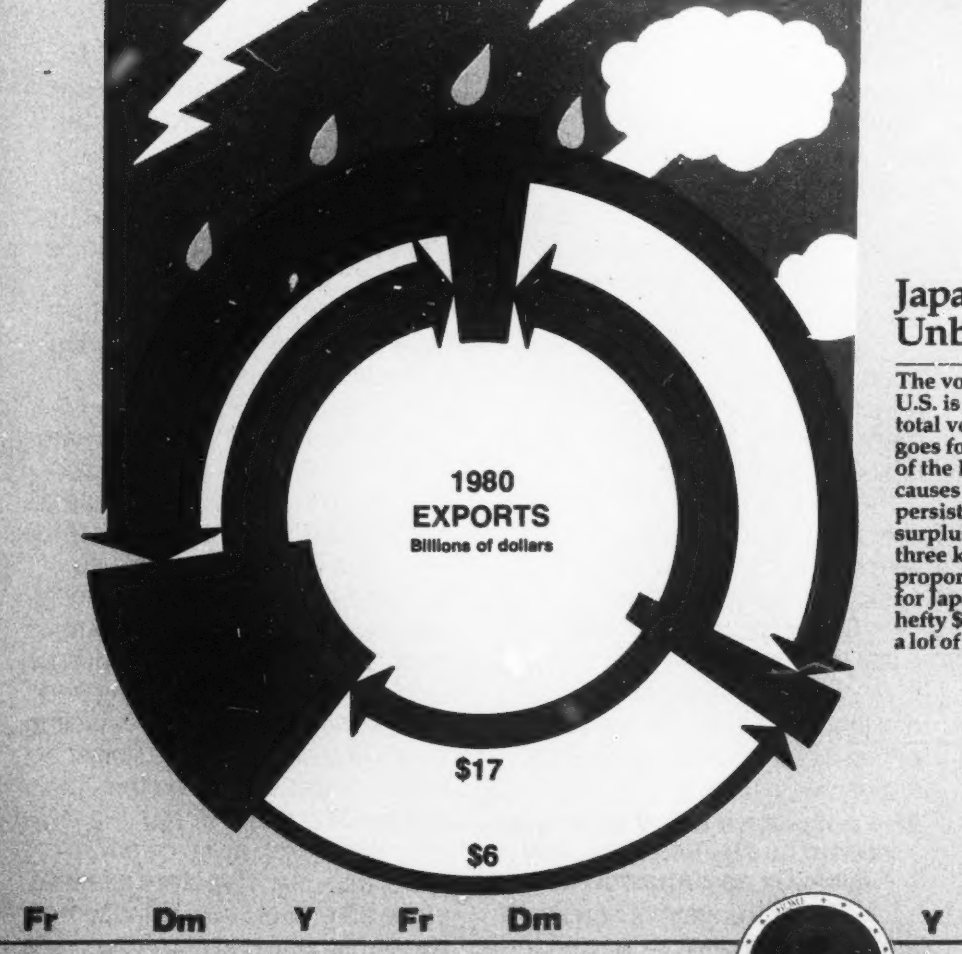
The Welcome Double Dip

Oil consumption in the industrial world declined after the 1973-74 price run-up, largely because economies sank into recession. When they recovered, so did oil consumption. But with the 1979-80 price run-up, OPEC overdid it. Projected oil consumption in 1981 will be barely higher than in the deep-recession year 1975.



Japan's Export Prowess Unbalances Trade

The volume of Japanese exports to the U.S. is not very large compared with the total volume of U.S. trade, and the same goes for Japanese exports to the members of the European Community. What causes the trouble in both cases is the persistent imbalance—always a trade surplus in Japan's favor. The sizes of the three keystone-shaped areas are proportional to total exports: $130 billion for Japan, $220 billion for the U.S., and a hefty $660 billion for the EEC countries—a lot of that being exports to each other. ▣



The Largest Industrial Companies in the World

(Ranked by sales)

When FORTUNE's ranking of the world's 50 largest industrial companies first appeared seven years ago, General Motors, Ford, and Chrysler clustered profitably among the top five. The trio have not aged well. Last year GM and Ford racked up $2.3 billion in losses, while Chrysler, which had slipped to 40th place a year ago, finally dropped off the list. France's Peugeot also had a tough year, ending in the red, and even the profitable German and Japanese car manufacturers—Volkswagenwerk, Toyota Motor, and Nissan Motor—slipped in rank.

The carmakers were overwhelmed by the petroleum deluge. With the addition to the list of Pemex (No. 34), Mexico's state-owned monopoly, and Standard Oil of Ohio (No. 50), oil-company representation rose to 22—almost double that on the original list. Takeover target Conoco (No. 25) seems sure to leapfrog, in some other form, next year. Its suitors are giants, though none of the combinations envisioned threaten Exxon's No. 1 rank.

Total sales of the 50 have grown to $1.2 trillion—greater than the gross national product of any of the countries represented here except the U.S. The list was compiled from two others: the FORTUNE 500 largest U.S. industrial corporations (May 4) and the 500 largest industrials outside the U.S. (page 206). That list is followed by our annual ranking of the 50 largest foreign banks (page 220). On the list at right, U.S. companies are in red.

RANK '80	'79	COMPANY	HEADQUARTERS	SALES ($000)	NET INCOME ($000)
1	1	**Exxon**	New York	103,142,834	5,650,090
2	3	**Royal Dutch/Shell Group**	The Hague/London	77,114,243	5,174,282
3	4	**Mobil**	New York	59,510,000	3,272,000
4	2	**General Motors**	Detroit	57,728,500	(762,500)
5	7	**Texaco**	Harrison, N.Y.	51,195,830	2,642,542
6	6	**British Petroleum**	London	48,035,941	3,337,121
7	8	**Standard Oil of California**	San Francisco	40,479,000	2,401,000
8	5	**Ford Motor**	Dearborn, Mich.	37,085,000	(1,543,300)
9	13	**ENI**	Rome	27,186,939	98,046
10	9	**Gulf Oil**	Pittsburgh	26,483,000*	1,407,000
11	10	**International Business Machines**	Armonk, N.Y.	26,213,000	3,562,000
12	14	**Standard Oil (Ind.)**	Chicago	26,133,080	1,915,314
13	15	**Fiat**	Turin (Italy)	25,155,000	N.A.
14	11	**General Electric**	Fairfield, Conn.	24,959,000	1,514,000
15	16	**Francaise des Pétroles**	Paris	23,940,355	946,772
16	21	**Atlantic Richfield**	Los Angeles	23,744,302	1,651,423
17	12	**Unilever**	London/Rotterdam	23,607,516	658,820
18	26	**Shell Oil**	Houston	19,830,000	1,542,000
19	22	**Renault**	Paris	18,979,278	160,165
20	29	**Petróleos de Venezuela**	Caracas	18,818,931	3,450,921
21	18	**International Telephone & Tel.**	New York	18,529,655	894,326
22	32	**Elf Aquitaine**	Paris	18,430,074	1,378,222
23	20	**Philips' Gloeilampenfabrieken**	Eindhoven (Netherlands)	18,402,818	165,210
24	19	**Volkswagenwerk**	Wolfsburg (Germany)	18,339,046	170,964
25	36	**Conoco**	Stamford, Conn.	18,325,400	1,026,195
26	23	**Siemens**	Munich	17,950,253	332,434
27	24	**Daimler-Benz**	Stuttgart	17,108,100	605,149
28	17	**Peugeot**	Paris	16,846,434	(348,998)
29	25	**Hoechst**	Frankfurt	16,480,551	251,605
30	27	**Bayer**	Leverkusen (Germany)	15,880,596	356,342
31	28	**BASF**	Ludwigshafen on Rhine	15,277,348	197,641
32	31	**Thyssen**	Duisburg (Germany)	15,235,998	61,611
33	47	**Petrobrás (Petróleo Brasileiro)**	Rio de Janeiro	14,836,326	767,419
34	●	**PEMEX (Petróleos Mexicanos)**	Mexico City	14,813,514	17,316
35	33	**Nestlé**	Vevey (Switzerland)	14,615,187	407,785
36	30	**Toyota Motor**	Toyota City (Japan)	14,233,779	616,051
37	38	**Nissan Motor**	Yokohama (Japan)	13,853,503	461,647
38	39	**E.I. du Pont de Nemours**	Wilmington, Del.	13,652,000	716,000
39	49	**Phillips Petroleum**	Bartlesville, Okla.	13,376,563	1,069,614
40	42	**Imperial Chemical Industries**	London	13,290,347	(46,510)
41	43	**Tenneco**	Houston	13,226,000	726,000
42	38	**Nippon Steel**	Tokyo	13,104,996	496,205
43	46	**Sun**	Radnor, Pa.	12,945,000	723,000
44	37	**Hitachi**	Tokyo	12,871,328	503,385
45	44	**Matsushita Electric Industrial**	Osaka (Japan)	12,684,404	541,923
46	34	**U.S. Steel**	Pittsburgh	12,492,100	504,500
47	48	**Occidental Petroleum**	Los Angeles	12,476,125	710,785
48	●	**United Technologies**	Hartford	12,323,994	393,383
49	45	**Western Electric**	New York	12,032,100	693,200
50	●	**Standard Oil (Ohio)**	Cleveland	11,023,196	1,811,224
		TOTALS		**1,203,998,984**	**53,281,324**

●Not on last year's list.

THE FORTUNE DIRECTORY OF THE LARGEST INDUSTRIAL CORPORATIONS OUTSIDE THE UNITED STATES

The Foreign 500

For the first time in five years, the total profits of the 500 largest foreign industrials declined. The drop, 12.5%, came despite a sales increase of 19%. Those dual culprits, inflation and recession, were largely to blame. Both were especially treacherous in Britain and France, home base for companies accounting for almost two-thirds of the drop. Net income of both the 88 British companies combined and the 42 French ones on the list was cut about in half, although sales of each group rose by more than 20%.

Even the perennial leader of the list, Royal Dutch/Shell—No. 1 for the 25th year in a row—was less profitable last year. Its net fell by $1.3 billion, or 20%, and the decline on the company's books, which are kept in British pounds, was even worse: 27%. While American oil companies had a banner year, helped by oil deregulation, European oil companies in general had it rough. They contended with reduced demand for oil and chemicals, increased taxation, and more expensive crude. The median profit change for companies in the industry was a negative 2.7%.

Supersonic sales

But price increases boosted sales of the petroleum group; by that yardstick, the median was a positive 43.2%. Sales in the aerospace industry, buoyed by the rise in defense spending, tied with petroleum for first place. Two French companies, Matra (No. 345) and Avions Marcel Dassault-Bréguet (No. 188), sailed ahead 49 and 50 places respectively in the rankings. And Britain's Rolls-Royce (No. 157) moved up 62 places on a 63% rise in sales. But things have been bumpy for Rolls on the bottom line for several years, and in 1980 the company lost $63 million, making it the only aerospace company on the list to wind up in the red.

Japan, which with 121 companies has the largest representation on the list, had other more enviable statistics. Although combined sales of this group rose only 9.6%, profits increased 35.1%. And four of the six companies on the 500 whose profits rose most were Japanese.

Sixty-six companies, 13 more than last year, lost money. The biggest loser was British Steel (No. 57), which had $6.8 billion in sales and managed to lose $3.9 billion, thanks largely to write-downs of $2.5 billion connected with the shutdown of a large chunk of its steelmaking capacity. Another U.K. giant of similar size and straits, BL (No. 59), formerly British Leyland, was the second-largest money loser with $1.2 billion in red ink. Beset by labor troubles and competition from Japanese cars, BL has been unprofitable for the last four years.

Some other companies would have shown losses had it not been for the largess of their governments. A state-owned Swedish conglomerate, Statsföretag Group, reported profits of $29 million only after government contributions of $140 million. Two other Swedish companies, SWEDYARDS (shipbuilding) and SSAB Svenskt Stål (steel), would have lost more than reported ($260 million and $35 million, respectively) had the state not kicked in more than $100 million in each case. Britain's National Coal Board had its $347-million loss rounded out to zero, thanks to a government "deficit grant."

Mexico's booming economy boosted four companies onto the list for the first time: Altos Hornos de Mexico (steel), Industrias Peñoles (mining and metals), Ford Motor SA, and Chrysler de Mexico. Unlike their gringo parents, both Ford (No. 444) and Chrysler de Mexico (No. 433) made a profit last year. Mexico's growing middle class and its relatively low gasoline prices have helped create one of the fastest-growing car markets in the world. Several Chrysler dealers in Mexico have put customers on waiting lists.

All in the family

In all, 42 subsidiaries of U.S. companies are on the Foreign 500. In FORTUNE's domestic rankings the sales of these subsidiaries are included with those of the parent, and sales between foreign subsidiaries are removed. The foreign list, by contrast, includes some double counting. For example, the list includes eight Esso subsidiaries, and four of them—in Germany (No. 33), Britain (No. 49), Italy (No. 111), and Belgium (No. 133)—count sales to other Esso subsidiaries in their totals. More than half the sales shown for Esso Belgium, for example, are to affiliated subsidiaries. Similarly, IBM Deutschland made 37% of its sales to other foreign IBM subsidiaries, and Ford-Werke of Germany sold 63% within the Ford family. This year, for the first time, FORTUNE flags the 25 companies where this situation exists (with footnote 13).

—SUE ZELONY and EDWARD C. BAIG

THE 500 LARGEST INDUSTRIAL CORPORATIONS OUTSIDE THE U.S. (ranked by sales)

RANK '80	'79	COMPANY	COUNTRY	INDUSTRY	SALES[1] ($000)	ASSETS[2] ($000)	NET INCOME[3] ($000)	STOCK-HOLDERS' EQUITY[4] ($000)	EMPLOYEES
1	1	Royal Dutch/Shell Group	Neth.-Britain	Petroleum	77,114,243	68,518,909	5,174,282	28,761,171	161,000
2	2	British Petroleum	Britain	Petroleum	48,035,941	42,378,471	3,337,121	14,154,825	118,200
3	4	ENI[5]	Italy	Petroleum	27,186,939[6]	20,091,996[6]	96,046[6]	2,927,556[6]	122,587[6]
4	5	Fiat	Italy	Motor vehicles	25,155,000	N.A.	N.A.	N.A.	342,654
5	6	Francaise des Pétroles	France	Petroleum	23,940,355[6]	16,165,949[6]	946,772[6]	4,340,606[6]	48,115[6]
6	3	Unilever	Britain-Neth.	Food products	23,607,516	13,238,166	658,820	5,076,386	300,000
7	10	Renault[5]	France	Motor vehicles	18,979,278	12,299,007	160,165	2,118,297	231,700
8	16	Petróleos de Venezuela[5]	Venezuela	Petroleum	18,818,931	19,336,851	3,450,921	13,425,948	36,275
9	19	Elf Aquitaine[5]	France	Petroleum	18,430,074	19,796,937	1,378,222	4,386,345	45,000
10	9	Philips' Gloeilampenfabrieken	Netherlands	Electronics, appliances	18,402,818	18,440,613	165,210	6,044,700	372,600
11	8	Volkswagenwerk	Germany	Motor vehicles	18,339,046	12,645,613	170,964	2,951,972	257,930
12	11	Siemens[7]	Germany	Electronics, appliances	17,950,253	17,813,692	332,434	4,616,046	344,000
13	12	Daimler-Benz	Germany	Motor vehicles	17,108,100	8,856,846	605,149	2,570,678	183,392
14	7	Peugeot[8]	France	Motor vehicles and parts	16,846,434	11,638,427	(348,998)	2,667,827	245,000
15	13	Hoechst	Germany	Chemicals	16,480,551[6]	12,329,470[6]	251,605[6]	2,705,730[6]	186,850[6]
16	14	Bayer	Germany	Chemicals	15,880,596[6]	13,453,399[6]	356,342[6]	2,981,127[6]	181,639[6]
17	15	BASF	Germany	Chemicals	15,277,348[6]	9,263,801[6]	197,641[6]	3,476,343[6]	116,518[6]
18	18	Thyssen[7]	Germany	Steel and industrial products	15,235,998[6]	9,493,607[6]	61,611[6]	1,741,601[6]	151,709[6]
19	27	Petrobrás (Petróleo Brasileiro)[5]	Brazil	Petroleum	14,836,326	13,490,366	767,419	5,012,519	64,830
20	39	Pemex (Petróleos Mexicanos)[5]	Mexico	Petroleum	14,813,514	31,804,157	17,316	N.A.	128,294
21	20	Nestlé	Switzerland	Food products, beverages	14,615,187	10,126,423	407,785	4,702,093	152,653
22	17	Toyota Motor[9]	Japan	Motor vehicles	14,233,779[10]	7,842,615[10]	616,051[10]	4,504,592[10]	47,064[10]
23	21	Nissan Motor[11]	Japan	Motor vehicles	13,853,503	9,293,328	461,647	3,055,812	95,566
24	25	Imperial Chemical Industries	Britain	Chemicals	13,290,347	14,534,676	(46,510)	6,545,860	143,200
25	23	Nippon Steel[11]	Japan	Metal refining—steel	13,104,996	13,793,676	496,205	2,134,588	75,767
26	22	Hitachi[11]	Japan	Electronics, appliances	12,871,328	12,422,812	503,385	3,442,472	143,270
27	26	Matsushita Electric Industrial[12]	Japan	Electronics, appliances	12,684,404	11,599,230	541,923	5,112,591	107,057
28	24	Mitsubishi Heavy Industries[11]	Japan	Motor vehicles, industrial equipment	10,997,586	13,369,016	100,659	1,025,600	95,300
29	28	BAT Industries	Britain	Tobacco	10,987,175*	9,694,562	323,247	4,171,194	177,000
30	32	Générale d'Electricité	France	Electronics, appliances	10,847,129[6]	12,986,590[6]	96,407[6]	1,033,816[6]	179,600[6]
31	30	Saint-Gobain-Pont-à-Mousson	France	Building materials, metal products	10,303,979	9,333,499	215,310	1,979,459	163,504
32	38	Petrofina	Belgium	Petroleum	9,759,894	7,291,742	323,332	1,478,952	23,000
33	48	Esso	Germany	Petroleum	9,748,306[13]	2,745,507	236,689	1,039,600	4,567
34	37	Veba Oel	Germany	Petroleum, chemicals	9,645,994[6]	3,588,568[6]	35,975[6]	646,246[6]	24,962[6]
35	33	Montedison	Italy	Chemicals	9,103,770[6]	9,913,320[6]	(524,160)[6]	1,475,280[6]	105,532[6]
36	29	Ruhrkohle	Germany	Mining—coal	9,047,459[6]	6,553,615[6]	14,760[6]	310,260[6]	136,816[6]
37	35	Pechiney Ugine Kuhlmann	France	Metal refining—aluminum, steel	9,029,710	7,533,180	143,935	1,821,915	89,100
38	62	Idemitsu Kosan[11]	Japan	Petroleum	8,706,305[10]	7,361,874[10]	(13,736)[10]	51,826[10]	7,851[10]
39	40	Thomson-Brandt	France	Electronics, appliances	8,657,462	8,729,603	72,852	668,664	128,400
40	42	Canadian Pacific	Canada	Metal refining	8,539,483	10,915,442	498,757	2,949,506	121,549
41	61	National Coal Board[11,5]	Britain	Mining	8,158,635	7,019,136	0	294,192	297,000
42	31	Toshiba[10]	Japan	Electronics, appliances	8,146,379	7,910,088	198,070	946,488	98,000
43	34	General Motors of Canada	Canada	Motor vehicles and parts	8,083,419	2,228,715	47,026	741,531	42,598
44	53	Michelin	France	Rubber products	7,731,084	8,408,703	65,813	1,993,606	128,000
45	41	Fried. Krupp	Germany	Metal refining—steel; mining	7,668,468	4,897,200	33,547	846,421	85,706
46	49	Schneider	France	Industrial equip.; metal refining—steel	7,599,648	14,499,436	(30,517)	314,391	117,000
47	51	DSM[5]	Netherlands	Chemicals	7,514,249[6]	4,511,106[6]	12,542[6]	1,037,218[6]	31,410[6]
48	56	Dunlop Pirelli Union	Britain-Italy	Rubber products	7,511,430	N.A.	N.A.	N.A.	151,000
49	69	Esso Petroleum	Britain	Petroleum	7,486,779[13]	7,131,165	486,731	1,186,377	10,246
50	44	Mannesmann	Germany	Industrial equipment; metal products	7,222,442	4,890,438	95,932	1,231,440	103,491

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*Fortune estimate.
N.A. Not available.

[1] All companies on the list have derived more than 50 percent of their sales from manufacturing and/or mining. Sales do not include excise taxes or customs duties levied according to either volume or value of sales, and so the figures for some companies—most of which sell gasoline, liquor, or tobacco—may be lower than those published by the companies themselves. Unless otherwise noted, figures exclude intracompany transactions and include consolidated subsidiaries more than 50 percent owned, either fully or on a prorated basis. Figures have been converted to dollars using an exchange rate that consists of the average rate in the offical exchange market during each company's fiscal year (ending December 31, 1980, unless otherwise noted).

[2] Total shown at each company's year-end. Figures have been converted to dollars at the market rate prevailing at each company's year-end.

[3] After taxes, minority interest, and extraordinary items. Figures have been converted to dollars at the average market rate during each company's fiscal year. Figures in parentheses are losses.

[4] Total at each company's year-end. Figures have been converted to dollars at the market rate prevailing at each company's year-end. Minority interest is not included.

[5] Government owned.

[6] Also includes certain subsidiaries owned 50 percent or less, either fully or on a prorated basis.

[7] Figures are for fiscal year ending September 30, 1980.

[8] Name changed from Peugeot-Citroën on June 26, 1980.

[9] Figures are for fiscal year ending June 30, 1980

[10] Parent only.

[11] Figures are for fiscal year ending March 31, 1980.

[12] Figures are for fiscal year ending November 20, 1980.

[13] Revenues include certain sales to foreign affiliates of the U.S. parent company.

THE 500 LARGEST INDUSTRIALS OUTSIDE THE U.S.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
51	36	**Rhône-Poulenc**	France	Chemicals	7,155,049	6,527,292	(461,303)	1,305,107	95,389
52	59	**Ciba-Geigy**	Switzerland	Chemicals; pharmaceuticals	7,113,254	9,878,032	182,100	5,966,987	81,184
53	47	**ESTEL**	Netherlands	Metal refining—steel; metal products	7,046,069	5,759,674	(245,851)	902,147	77,500
54	72	**Esso**	France	Petroleum	7,028,623	2,490,389	71,292	444,484	4,848
55	63	**Gutehoffnungshütte**[9]	Germany	Industrial and transportation equipment	6,912,217	5,976,557	48,243	767,746	86,106
56	45	**Ford Motor**	Britain	Motor vehicles	6,799,820[13]	5,346,582	474,406	2,501,283	80,000
57	50	**British Steel**[11,5]	Britain	Metal refining—steel	6,772,688	7,415,280	(3,891,296)	1,717,200	166,400
58	46	**AEG-Telefunken**	Germany	Electronics, appliances	6,755,946[6]	4,335,112[6]	(163,847)[6]	432,305[6]	108,000[6]
59	52	**BL**[5]	Britain	Motor vehicles	6,690,754	5,674,114	(1,245,316)	1,547,116	143,324
60	73	**General Electric Co.**[11]	Britain	Industrial equipment, electronics	6,556,311	6,494,256	546,396	2,931,768	190,000
61	60	**Robert Bosch**	Germany	Motor-vehicle parts; electronics, appl.	6,505,872	4,228,431	114,588	1,224,143	120,020
62	67	**Rio Tinto-Zinc**	Britain	Mining—alum., lead, zinc, copper, iron	6,501,689	9,031,376	387,199	2,823,320	65,799
63	55	**Akzo Group**	Netherlands	Chemicals	6,272,300	4,470,129	(35,057)	1,054,055	83,100
64	68	**Brown Boveri**	Switzerland	Electrical equipment	6,005,726[6]	N.A.	N.A.	N.A.	105,300[6]
65	57	**Nippon Kokan**[11]	Japan	Metal refining—steel	5,930,483	9,741,196	114,219	811,796	37,752
66	98	**Toa Nenryo Kogyo**	Japan	Petroleum	5,841,797	3,841,580	162,253	751,343	3,824
67	92	**Maruzen Oil**[11]	Japan	Petroleum	5,815,731	4,412,104	(992)	97,504	4,689
68	70	**Honda Motor**[14]	Japan	Motor vehicles	5,703,204	3,546,191	122,986	894,576	33,405
69	65	**Volvo**	Sweden	Motor vehicles	5,628,743	5,275,339	9,104	648,077	63,893
70	76	**Imperial Group**[15]	Britain	Tobacco, food products, beverages	5,591,996*	5,665,381	211,310	2,656,567	127,300
71	66	**Sumitomo Metal Industries**[11]	Japan	Metal refining—steel	5,558,928	7,678,424	177,072	761,816	34,160
72	80	**Hyundai Group**	South Korea	Shipbldg., indus. equip., motor vehicles	5,540,543	4,415,363	97,164	847,360	125,600
73	54	**Ford Motor of Canada**	Canada	Motor vehicles	5,480,827[13]	1,812,054	(42,592)	661,950	33,726
74	105	**Electrolux**[16]	Sweden	Electronics, appliances	5,409,015[6]	4,068,906[6]	79,690[6]	625,670[6]	102,900[6]
75	119	**Chinese Petroleum**[5]	Taiwan	Petroleum	5,373,416[10]	3,475,029[10]	8,657[10]	1,292,990[10]	19,426[10]
76	112	**ENPETROL**[5]	Spain	Petroleum	5,275,030[6]	3,140,405[6]	17,233[6]	832,121[6]	8,399[6]
77	79	**Alcan Aluminium**	Canada	Metal refining—aluminum	5,215,000	5,470,000	542,000	2,463,000	66,900
78	64	**Imperial Oil**	Canada	Petroleum	5,202,607	5,227,289	583,294	3,172,037	16,029
79	94	**Usinor**	France	Metal refining—steel	5,149,864	7,515,456	(296,963)	175,833	40,000
80	88	**Grand Metropolitan**[7]	Britain	Beverages, food products	5,098,486	5,992,086	277,967	2,986,376	126,737
81	●	**Adam Opel**	Germany	Motor vehicles	5,081,645[13]	2,689,763	226,306	1,040,312	59,876
82	81	**Metallgesellschaft**[7]	Germany	Metal refining—nonferrous	5,081,174	2,457,709	22,189	353,698	27,220
83	71	**Mitsubishi Electric**[11]	Japan	Electronics, appliances	5,065,643	4,226,440	140,705	773,800	59,937
84	74	**Kawasaki Steel**[11]	Japan	Metal refining—steel	5,016,277[10]	6,826,337[10]	218,583[10]	833,810[10]	35,068[10]
85	77	**Charbonnages de France**[5]	France	Chemicals	4,959,182[6]	5,180,470[6]	(50,182)[6]	762,547[6]	77,600[6]
86	103	**Schlumberger**	Neth. Antilles	Measuring and scientific equipment	4,883,944	5,242,002	994,347	3,218,401	83,400
87	111	**Degussa**[7]	Germany	Metal products, chemicals	4,857,719	1,831,875	37,742	354,304	20,569
88	89	**Salzgitter**[7,5]	Germany	Metal refining—steel; shipbuilding	4,817,496	4,775,555	(48,668)	515,811	56,574
89	58	**Ford-Werke**	Germany	Motor vehicles	4,788,380[13]	2,081,288	(254,979)	535,339	49,767
90	84	**YPF (Yacimientos Petrolíferos)**[5]	Argentina	Petroleum	4,784,103	9,737,875	113,460	4,850,971	33,602
91	83	**Solvay**	Belgium	Chemicals	4,741,913[6]	3,885,218[6]	59,458[6]	1,333,075[6]	49,057[6]
92	102	**George Weston Holdings**[11]	Britain	Food products	4,705,709	1,920,916	102,053	650,212	N.A.
93	75	**Flick Group**	Germany	Paper and wood products, chemicals	4,642,648	3,928,141	40,167	864,430	46,891
94	104	**Indian Oil**[11,5]	India	Petroleum	4,605,396[17]	2,054,906[17]	90,659[17]	532,972[17]	20,032[17]
95	91	**Toyo Kogyo**[15]	Japan	Motor vehicles	4,572,614	3,265,016	82,772	591,533	28,297
96	93	**Kuwait National Petroleum**[5]	Kuwait	Petroleum	4,564,949	2,307,436	N.A.	622,934	3,452
97	●	**Türkiye Petrolleri**[5]	Turkey	Petroleum	4,515,629	2,718,956	114,977	148,581	9,723
98	86	**VÖEST-Alpine**[5]	Austria	Metal refining—steel	4,484,173	5,635,189	(65,026)	762,722	79,413
99	78	**Kobe Steel**[11]	Japan	Metal refining—steel	4,478,053[10]	5,225,833[10]	111,795[10]	581,605[10]	31,132[10]
100	82	**Guest, Keen & Nettlefolds**	Britain	Motor-vehicle parts	4,471,277	3,518,519	(209,064)	1,559,300	92,996

●Not on last year's list.

N.A. Not available.

*Fortune estimate.

[14] Figures are for fiscal year ending February 29, 1980.

[15] Figures are for fiscal year ending October 31, 1980.

[16] Figures include Gränges (1979 rank: 331), acquired January 1, 1980.

[17] Includes only wholly owned subsidiaries.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
101	227	**Lucky Group**	South Korea	Petroleum; electronics, appliances	4,452,461	2,761,487	25,490	388,360	43,100
102	90	**BSN-Gervais Danone**	France	Food products; building materials	4,320,016	3,001,620	78,486	665,857	47,969
103	●	**Taiyo Fishery[18]**	Japan	Food products	4,309,310	1,800,297	4,411	83,073	11,112
104	96	**Italsider[5]**	Italy	Metal refining—steel	4,285,914[10]	7,193,636[10]	(873,700)[10]	1,470,738[10]	52,790[10]
105	130	**Mitsubishi Oil[11]**	Japan	Petroleum	4,202,607	3,479,488	29,209	97,584	3,517
106	●	**Dalgety[9,19]**	Britain	Food products	4,186,275	1,735,297	7,141	539,881	28,567
107	115	**Broken Hill Proprietary[20]**	Australia	Metal refining—steel	4,163,029	5,686,705	245,365	3,282,020	72,000
108	101	**Mitsubishi Chemical Industries[18]**	Japan	Chemicals	4,126,578	4,374,433	42,493	407,859	14,066
109	107	**ALUSUISSE (Swiss Aluminum)**	Switzerland	Metal refining—aluminum	4,121,615	4,756,359	80,721	1,631,831	45,080
110	99	**Bowater**	Britain	Paper and wood products	4,092,915	2,295,590	8,604	788,848	34,500
111	139	**Esso Italiana**	Italy	Petroleum	4,091,915[13,10]	258,717[10]	118,874[10]	255,351[10]	2,680[10]
112	100	**IBM Deutschland**	Germany	Office equipment (includes computers)	4,065,569[13]	2,875,437	324,869	709,394	26,362
113	106	**Allied Breweries[14]**	Britain	Beverages, food products	4,062,660	3,952,065	137,625	2,011,605	84,805
114	155	**Barlow Rand[7]**	South Africa	Mining—coal, gold, chrome; ind. equip.	4,051,657	3,884,701	268,005	1,104,820	114,292
115	120	**Mobil Oil**	Germany	Petroleum	4,049,969[13,10]	1,718,549[10]	162,012[10]	541,673[10]	2,067[10]
116	108	**Sanyo Electric[21]**	Japan	Electronics, appliances	4,023,486	3,450,022	132,666	1,000,526	21,177
117	95	**Sacilor**	France	Metal refining—steel	4,003,357[6]	5,568,673[6]	(469,984)[6]	(609,990)[6]	48,127[6]
118	97	**BMW (Bayerische Motoren Werke)**	Germany	Motor vehicles	4,000,286	2,190,744	89,958	586,716	39,935
119	114	**Courtaulds[11]**	Britain	Textiles	3,967,639	2,765,016	72,417	976,752	153,003
120	121	**Deutsche Texaco**	Germany	Petroleum	3,949,844	1,550,957	114,391	350,962	4,827
121	123	**Thomas Tilling**	Britain	Building materials, industrial equipment	3,945,477	2,391,150	120,927	1,011,503	45,700
122	144	**Nippon Mining[11]**	Japan	Petroleum, metal refining—nonferrous	3,941,471	3,505,304	34,173	192,660	8,437
123	149	**Showa Oil**	Japan	Petroleum	3,877,695[10]	2,808,986[10]	19,985[10]	150,612[10]	2,060[10]
124	143	**Daikyo Oil[20]**	Japan	Petroleum	3,832,538	2,400,388	28,174	99,864	2,012
125	109	**Samsung Group**	South Korea	Elect., appliances, food prod., textiles	3,798,093	3,273,225	17,756	594,554	74,462
126	124	**Sony[15]**	Japan	Electronics, appliances	3,789,893[17]	4,158,938[17]	297,224[17]	1,542,979[17]	32,821[17]
127	87	**Nippon Electric[11]**	Japan	Electronics, appliances	3,767,224	3,959,248	63,898	521,052	60,755
128	167	**CEPSA (Española de Petróleos)**	Spain	Petroleum	3,705,759[10]	1,685,052[10]	19,910[10]	224,694[10]	4,702[10]
129	152	**ÖMV[5]**	Austria	Petroleum	3,631,971	1,917,117	17,641	363,288	9,189
130	85	**Ishikawajima-Harima Heavy Ind.[11]**	Japan	Industrial equipment; shipbuilding	3,602,772	6,491,608	21,946	390,224	43,000
131	173	**Neste[5]**	Finland	Petroleum	3,596,391[10]	2,245,967[10]	29,608[10]	148,736[10]	4,907[10]
132	161	**Thorn EMI[11,22]**	Britain	Electronics, appliances	3,535,539	3,495,960	196,528	1,183,464	125,458
133	136	**Esso**	Belgium	Petroleum	3,514,200[13,10]	809,222[10]	74,747[10]	258,672[10]	1,603[10]
134	118	**Roche/Sapac**	Switzerland	Pharmaceuticals; chemicals	3,496,205	5,420,526	138,277	3,741,703	43,643
135	110	**Cockerill**	Belgium	Metal refining—steel; metal products	3,452,846[6]	3,470,100[6]	(269,582)[6]	79,588[6]	32,659[6]
136	148	**Gulf Canada**	Canada	Petroleum	3,446,738	3,090,832	325,003	1,612,389	10,914
137	202	**Métallurgie Hoboken-Overpelt[7]**	Belgium	Metal refining—nonferrous	3,356,775[10]	1,247,848[10]	26,711[10]	267,513[10]	6,983[10]
138	127	**Statsföretag Group[5]**	Sweden	Paper and wood products; mining—iron	3,341,463	4,661,466	29,346	922,828	46,390
139	165	**Korea Oil**	South Korea	Petroleum	3,321,064[10]	1,271,798[10]	(54,589)[10]	104,617[10]	2,649[10]
140	178	**British Aerospace[5]**	Britain	Aerospace	3,309,448	3,064,609	266,272	1,371,047	79,300
141	116	**Saab-Scania**	Sweden	Motor vehicles	3,308,097	2,925,998	84,183	452,869	39,347
142	117	**Reed International[11]**	Britain	Paper products, publishing	3,306,075	N.A.	162,937	N.A.	61,100
143	129	**Ranks Hovis McDougall[23]**	Britain	Food products	3,279,014	1,617,695	36,670	706,130	54,063
144	126	**IBM France**	France	Office equipment (includes computers)	3,245,519	2,099,460	140,505	1,095,111	20,506
145	135	**Sumitomo Chemical**	Japan	Chemicals	3,180,731	3,073,263	38,922	526,174	11,898
146	125	**Massey-Ferguson[15]**	Canada	Farm equipment	3,132,100	2,827,600	(225,200)	353,100	41,690
147	137	**Aérospatiale[5]**	France	Aerospace	3,120,122[10]	4,879,490[10]	28,092[10]	146,896[10]	34,422[10]
148	131	**Asahi Chemical Industry[11]**	Japan	Chemicals, textiles	3,102,752	2,824,072	94,846	620,232	20,779
149	134	**Saarbergwerke[5]**	Germany	Petroleum, mining	3,036,555[6]	2,066,516[6]	2,704[6]	399,137[6]	32,584[6]
150	154	**Inco**	Canada	Mining—nickel; electronics	3,036,099	4,631,480	219,407	2,162,341	52,653

[18] Figures are for fiscal year ending January 31, 1980.

[19] Figures include Spillers (1979 rank: 287), acquired October 12, 1979.

[20] Figures are for fiscal year ending May 31, 1980.

[21] Figures are for fiscal year ending November 30, 1980.

[22] Name changed from Thorn Electrical Industries after acquisition of EMI (1979 rank: 229) on December 5, 1979.

[23] Figures are for fiscal year ending August 31, 1980.

THE 500 LARGEST INDUSTRIALS OUTSIDE THE U.S.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
151	141	**Bridgestone Tire**	Japan	Rubber products	3,015,997	2,974,332	125,130	1,012,698	30,911
152	122	**Isuzu Motors[15]**	Japan	Motor vehicles	3,000,605	2,884,352	19,922	411,859	21,801
153	162	**BICC**	Britain	Industrial equipment	2,979,921	1,606,125	100,928	543,736	50,300
154	169	**Texaco Canada**	Canada	Petroleum	2,975,816	2,179,238	319,373	1,073,819	4,442
155	133	**ASEA**	Sweden	Electronics, appliances	2,969,354	3,973,298	38,072	516,600	39,605
156	146	**SKF**	Sweden	Metal products	2,958,713	3,264,115	105,702	802,965	53,026
157	219	**Rolls-Royce[5]**	Britain	Aerospace	2,926,434	2,958,299	(62,789)	1,079,589	62,000
158	138	**Sandoz**	Switzerland	Pharmaceuticals, dyes	2,925,545	3,234,123	120,604	1,855,662	35,459
159	113	**Snow Brand Milk Products[11]**	Japan	Food products	2,915,473	1,188,522	12,402	170,441	17,018
160	175	**L.M. Ericsson Telephone**	Sweden	Electronics, appliances	2,878,738[6]	4,041,364[6]	50,912[6]	686,845[6]	65,900[6]
161	150	**Komatsu**	Japan	Industrial and farm equipment	2,869,634	4,087,403	123,003	1,202,325	22,627
162	166	**Burmah Oil**	Britain	Petroleum; motor-vehicle parts	2,862,715	2,273,611	71,161	842,839	28,200
163	157	**Rank Xerox[15]**	Britain	Office equipment (includes computers)	2,839,819	2,982,032	210,162	1,658,282	33,727
164	181	**Tabacalera[5]**	Spain	Tobacco	2,839,542	447,657	1,418,276	51,229	8,862
165	226	**Norsk Hydro[9,5]**	Norway	Petroleum, chemicals	2,835,591	3,298,498	79,442	694,877	13,271
166	164	**Hawker Siddeley Group**	Britain	Industrial equipment, electronics	2,802,252	2,489,338	148,136	1,199,756	55,600
167	159	**Klöckner-Werke[7]**	Germany	Steel and industrial products	2,781,242	2,341,546	(5,487)	415,967	29,889
168	170	**Vallourec**	France	Metal prod.—steel tubes; bldg. materials	2,758,216[6]	2,432,357[6]	(15,015)[6]	386,706[6]	30,000[6]
169	145	**De Beers Consolidated Mines**	South Africa	Mining—diamonds	2,751,913	5,118,463	1,099,224	3,874,283	23,000
170	211	**Zambia Industrial & Mining[11,5]**	Zambia	Mining—copper; food products	2,744,409	5,029,135	170,682	1,098,807	122,979
171	151	**BOC International[7]**	Britain	Chemicals—gases; industrial equipment	2,710,464	3,406,488	59,678	1,391,621	44,700
172	174	**Unigate[11]**	Britain	Food products	2,702,706	1,234,824	129,865	606,290	36,800
173	147	**Tube Investments**	Britain	Metal products, metal refin.—aluminum	2,693,417	1,926,012	(43,487)	807,482	54,500
174	160	**VIAG[9]**	Germany	Metal refining—aluminum	2,692,457[6]	2,716,458[6]	49,290[6]	733,810[6]	26,211[6]
175	128	**Kawasaki Heavy Industries[11]**	Japan	Industrial equip., shipbldg., trans. equip.	2,690,391	3,578,664	1,381	399,852	28,947
176	179	**Lucas Industries[24]**	Britain	Motor-vehicle parts	2,679,906	2,112,958	58,018	1,085,327	86,515
177	153	**Chemische Werke Hüls**	Germany	Chemicals	2,678,281[10]	1,462,953[10]	34,208[10]	478,583[10]	18,063
178	187	**Bertelsmann[9]**	Germany	Publishing, printing	2,676,405[6]	1,614,614[6]	22,241[6]	225,915[6]	29,570[6]
179	158	**Toray Industries[11]**	Japan	Chemicals	2,644,409	2,549,732	71,747	634,200	22,093
180	176	**IMETAL**	France	Mining—nonferrous	2,621,122[6]	2,080,674[6]	58,830[6]	731,633[6]	22,000[6]
181	132	**Fujitsu[11]**	Japan	Office equipment, electronics	2,619,548	2,280,648	76,527	543,920	44,200
182	191	**Esso Nederland**	Netherlands	Petroleum	2,619,247	959,682	33,646	433,213	1,640
183	192	**L'Air Liquide**	France	Chemicals, gases	2,614,348	2,509,292	134,160	719,685	25,000
184	182	**Cadbury Schweppes**	Britain	Food products, beverages	2,602,024	1,561,928	95,579	697,588	39,561
185	210	**South African Iron & Steel Ind.[9,5]**	South Africa	Metal refining—steel	2,581,702[10]	4,284,942[10]	83,887[10]	1,961,547[10]	70,000[10]
186	180	**Deutsche Babcock[7]**	Germany	Metal products, industrial equipment	2,564,769	3,981,499	13,867	417,682	31,187
187	172	**Olivetti**	Italy	Office equipment (includes computers)	2,550,840	N.A.	N.A.	N.A.	53,339
188	238	**Avions M. Dassault-Bréguet**	France	Aerospace	2,547,471	4,158,309	75,818	125,654	16,265
189	184	**Mitsui Toatsu Chemicals[11]**	Japan	Chemicals	2,536,890	3,175,972	57,505	176,776	9,216
190	205	**CSR[11]**	Australia	Sugar, mining, bldg. materials, chem.	2,481,629	2,229,322	106,728	931,232	15,500
191	140	**Kubota[25]**	Japan	Industrial and farm equipment	2,481,287	2,323,740	86,158	924,917	19,000
192	185	**Noranda Mines**	Canada	Mining—nonferrous	2,471,127	3,296,960	349,254	1,675,162	27,900
193	262	**Philippine National Oil[5]**	Philippines	Petroleum	2,470,638[10]	1,668,459[10]	43,053[10]	319,913[10]	7,362
194	163	**Oerlikon-Bührle**	Switzerland	Indus. and military equip.; leather prod.	2,455,607	3,651,185	120,186	1,813,928	37,204
195	224	**Metal Box[11]**	Britain	Metal products	2,447,351	1,507,172	66,942	702,130	55,873
196	171	**Union International**	Britain	Food products	2,366,914	853,742	(14,865)	173,956	N.A.
197	203	**Koor Industries**	Israel	Metal prod., electronics, chem., food	2,362,429	2,419,718	66,414	363,871	27,800
198	208	**Consolidated Gold Fields[9]**	Britain	Building materials, mining—gold	2,340,833	1,827,868	200,611	922,885	101,387
199	196	**Canada Packers[11]**	Canada	Food products	2,325,462	404,112	30,827	195,688	14,000
200	197	**Asahi Glass**	Japan	Building materials, chemicals	2,303,294	2,462,962	103,999	914,284	11,447

●Not on last year's list.

N.A. Not available.

*Fortune estimate.

[24] Figures are for fiscal year ending July 31, 1980.

[25] Figures are for fiscal year ending April 15, 1980.

RANK '80	'79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
201	186	**Matsushita Electric Works[21]**	Japan	Electronics, applicances, bldg. materials	2,298,887	1,532,440	91,485	654,862	12,209
202	207	**Alfa Romeo[5]**	Italy	Motor vehicles	2,281,383	2,546,532	(88,218)	613,440	45,825
203	215	**Sulzer Brothers**	Switzerland	Industrial equipment	2,281,266	3,541,815	17,314	1,701,257	34,931
204	190	**CODELCO-CHILE[5]**	Chile	Mining—copper	2,280,767	2,292,047	401,250	1,486,894	29,872
205	206	**Ube Industries[11]**	Japan	Chemicals, cement	2,269,350	2,614,852	19,031	220,916	14,849
206	228	**Steel Authority of India[11,5]**	India	Metal refining	2,258,385	5,499,819	38,349	3,173,520	234,179
207	194	**Nippondenso**	Japan	Motor-vehicle parts	2,244,774[10]	1,919,123[10]	108,443[10]	967,901[10]	25,147[10]
208	223	**Beecham Group[11]**	Britain	Pharmaceuticals; soaps, cosmetics, bev.	2,243,167	1,986,552	175,806	1,122,768	33,100
209	193	**KHD (Klöckner-Humboldt-Deutz)**	Germany	Industrial and farm equipment	2,222,708	1,613,038	21,557	358,596	26,397
210	214	**IBM United Kingdom Holdings**	Britain	Office equipment (includes computers)	2,218,546[13]	680,865	211,622	334,460	15,000
211	213	**Showa Denko**	Japan	Chemicals, metal manufacturing	2,190,538	2,505,495	29,309	277,237	6,012
212	183	**Ultramar**	Britain	Petroleum	2,184,826	1,232,724	172,321	470,394	4,000
213	200	**Furukawa Electric[11]**	Japan	Metal refining—copper	2,175,202	1,636,340	22,549	196,116	11,306
214	201	**Sharp[11]**	Japan	Electronics, appliances	2,172,467	1,960,820	72,809	513,052	18,301
215	198	**Henkel**	Germany	Chemicals; soaps, cosmetics	2,169,595	1,321,499	47,036	546,559	18,532
216	300	**PETROGAL (Petróleos de Portugal)[5]**	Portugal	Petroleum	2,164,789[10]	2,225,101[10]	43,307[10]	N.A.[10]	7,200[10]
217	212	**Lafarge Coppée[26]**	France	Building materials	2,159,645[6]	2,913,885[6]	89,384[6]	578,269[6]	22,605[6]
218	253	**Koç Holding**	Turkey	Motor vehicles, electronics	2,153,405[6]	N.A.	17,722[6]	N.A.	N.A.
219	218	**Rothmans International[11]**	Britain	Tobacco	2,141,441	2,299,227	71,993	587,190	24,686
220	272	**International Thomson Organisation**	Canada	Petroleum	2,132,967	1,421,933	45,813	274,496	22,000
221	189	**Sumitomo Electric Industries[11]**	Japan	Metal products	2,119,813	1,658,588	33,736	304,412	18,722
222	286	**Mobil Oil**	Britain	Petroleum	2,106,235[13]	1,330,895	81,800	450,295	2,477
223	231	**Gallaher Group[27]**	Britain	Tobacco	2,106,042	1,408,898	115,476	578,422	27,536
224	216	**MacMillan Bloedel**	Canada	Paper and wood prod., bldg. materials	2,083,793	1,737,320	96,804	771,290	24,730
225	259	**Conoco**	Britain	Petroleum	2,063,179*[13]	1,151,976	156,042	476,844	2,238
226	254	**L'Oréal**	France	Soaps, cosmetics	2,061,112[6]	1,486,861[6]	85,665[6]	517,998[6]	24,776[6]
227	168	**Kanebo[28]**	Japan	Textiles; soaps, cosmetics	2,056,629	2,012,499	1,039	97,097	22,679
228	237	**United Biscuits (Holdings)**	Britain	Food products	2,047,155	1,229,618	36,046	605,850	41,000
229	299	**Grupo Industrial Alfa**	Mexico	Metal refining—steel, chemicals	2,035,039	3,918,116	145,946	1,393,923	49,019
230	222	**Babcock International**	Britain	Industrial equipment	2,030,193	1,254,000	13,407	420,856	38,219
231	233	**Canada Development Corp.**	Canada	Chemicals	2,017,770	2,885,174	161,704	1,104,210	34,114
232	188	**Dai Nippon Printing[20]**	Japan	Publishing, printing	2,010,315	1,522,456	93,378	772,921	12,750
233	250	**Bass[7]**	Britain	Beverages	1,986,161	3,128,880	172,907	2,061,413	65,737
234	142	**Haci Ömer Sabanci Holding**	Turkey	Textiles	1,982,598[6]	2,168,685[6]	28,006[6]	63,277[6]	28,282[6]
235	●	**Genstar**	Canada	Building materials	1,976,054	2,038,059	131,473	777,984	17,525
236	315	**Koa Oil[11]**	Japan	Petroleum	1,974,732[10]	1,583,466[10]	27,640[10]	93,196[10]	1,387[10]
237	258	**Hyosung Group**	South Korea	Textiles, industrial equip.	1,950,220	1,593,454	3,651	165,798	24,342
238	232	**Preussag**	Germany	Metal refining—nonferrous; coal	1,947,367[6]	1,345,418[6]	45,802[6]	237,571[6]	17,024[6]
239	239	**Fuji Photo Film[29]**	Japan	Chemicals	1,947,274	2,183,924	138,829	958,240	14,979
240	279	**Unión Explosivos Rio Tinto**	Spain	Petroleum, chemicals	1,938,410[10]	2,107,203[10]	203[10]	679,746[10]	10,711[10]
241	462	**Hiram Walker Resources[7,30]**	Canada	Beverages	1,931,815	3,084,731	205,244	1,368,160	11,700
242	260	**Sandvik Group**	Sweden	Metal refining—steel, cemented carbide	1,926,356[6]	2,425,896[6]	45,189[6]	404,518[6]	33,289[6]
243	199	**Nippon Suisan[11]**	Japan	Food products	1,925,793	823,500	16,776	149,100	6,111
244	204	**Takeda Chemical[11]**	Japan	Pharmaceuticals	1,915,624	1,843,684	98,967	816,076	12,753
245	225	**Stelco[31]**	Canada	Metal refining—steel	1,906,072	2,420,729	113,054	1,308,241	25,094
246	252	**Oji Paper[11]**	Japan	Paper and wood products	1,906,063	1,632,872	20,168	276,940	8,727
247	●	**Mobil Oil Française**	France	Petroleum	1,895,802[10]	1,233,151[10]	450[10]	188,808[10]	2,480[10]
248	195	**Kirin Brewery[18]**	Japan	Beverages	1,888,738	1,745,720	75,814	583,570	15,761
249	352	**Johnson Matthey[11]**	Britain	Metal manufacturing, chemicals	1,887,983	2,725,639	100,676	433,391	9,169
250	361	**PETRONOR**	Spain	Petroleum	1,870,244	982,429	(1,810)	166,584	590

[26] Name changed from Lafarge on December 17, 1980.

[27] Name changed from Gallaher on January 2, 1981.

[28] Figures are for fiscal year ending April 30, 1980.

[29] Figures are for fiscal year ending October 20, 1980.

[30] Name changed from Hiram Walker-Gooderham & Worts on April 8, 1980.
Name changed from Hiram Walker-Consumers Home on June 1, 1981.

[31] Name changed from Steel Co. of Canada on June 27, 1980.

THE 500 LARGEST INDUSTRIALS OUTSIDE THE U.S.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
251	280	**Canon**	Japan	Measuring and scientific equipment	1,850,030	2,107,197	107,817	615,713	21,727
252	235	**Standard Elektrik Lorenz**	Germany	Electronics, appliances	1,846,133	998,219	23,690	329,811	33,195
253	269	**Snia Viscosa**	Italy	Chemicals, textiles	1,826,370	2,167,560	0	141,567	32,000
254	277	**MBB (Messerschmitt-Bölkow-Blohm)**	Germany	Aerospace	1,820,185[6]	1,830,723[6]	27,546[6]	176,690[6]	26,287[6]
255	221	**Toppan Printing[20]**	Japan	Publishing, printing	1,818,896	1,233,133	58,123	485,404	10,900
256	243	**Yamaha Motor[28]**	Japan	Motor vehicles	1,810,861	1,191,747	26,532	196,071	13,358
257	266	**Moore**	Canada	Paper products, printing	1,804,781	1,036,781	110,722	637,104	27,813
258	249	**Sanyo-Kokusaku Pulp[11]**	Japan	Paper and wood products	1,801,449	1,526,244	10,235	112,064	8,390
259	209	**Toyo Seikan[11]**	Japan	Metal products	1,796,219	1,225,092	42,468	338,508	11,563
260	256	**Mitsubishi Petrochemical**	Japan	Chemicals	1,790,533[10]	1,989,713[10]	15,062[10]	187,819[10]	3,778[10]
261	230	**Vauxhall Motors**	Britain	Motor vehicles	1,783,283[13]	1,124,588	(193,825)	519,619	30,670
262	273	**Schering**	Germany	Pharmaceuticals, chemicals	1,773,733	1,441,621	42,783	457,043	21,294
263	251	**British Shipbuilders[11,5]**	Britain	Shipbuilding	1,773,506	1,098,999	(332,102)	124,926	72,700
264	247	**Suzuki Motor[11]**	Japan	Motor vehicles	1,767,451	1,020,232	22,090	179,024	14,049
265	246	**Enterprise Minière et Chimique[5]**	France	Mining—potash; chemicals	1,766,779	1,328,449	6,780	333,402	11,385
266	●	**Statoil[5]**	Norway	Petroleum	1,766,469	2,815,865	41,128	447,088	2,335
267	242	**Northern Telecom**	Canada	Electronics, appliances	1,757,204	1,662,290	(158,358)	609,723	31,915
268	245	**Fuji Heavy industries[11]**	Japan	Motor vehicles	1,750,538[10]	1,084,088[10]	23,158[10]	205,877[10]	13,414[10]
269	386	**SSAB (Svenskt Stål)**	Sweden	Metal refining—steel	1,745,787	1,953,266	(34,998)	579,349	17,573
270	●	**Empresa Nacional del Petroleo[5]**	Chile	Petroleum	1,742,112	1,439,293	19,196	903,755	4,571
271	282	**Continental Gummi-Werke**	Germany	Rubber products	1,740,727	1,025,819	14,759	205,337	30,727
272	220	**Toyobo[28]**	Japan	Textiles, chemicals	1,726,435	1,458,695	20,477	194,203	17,258
273	177	**Chrysler Canada**	Canada	Motor vehicles	1,714,110[13]	540,773	(166,372)	N.A.	9,550
274	248	**Ready Mixed Concrete**	Britain	Building materials	1,709,576	928,748	55,778	340,375	15,319
275	425	**Ssangyong Cement Industrial**	South Korea	Building materials, petroleum	1,707,819	1,858,813	N.A.	199,750	12,348
276	267	**Union Laitière Normande**	France	Food products	1,702,431[6]	543,989[6]	(18,087)[6]	55,358[6]	5,731[6]
277	324	**Mitsubishi Metal[11]**	Japan	Metal refining—copper	1,698,518	1,485,486	10,965	93,002	6,489
278	288	**Reckitt & Colman**	Britain	Food products, beverages, soaps	1,693,165	1,009,161	37,232	491,083	35,000
279	240	**Teijin[11]**	Japan	Chemicals	1,689,844	1,942,100	20,784	355,792	10,534
280	312	**Oljekonsumenternas Förbund**	Sweden	Petroleum	1,679,173	1,014,078	108,374	86,298	5,943
281	217	**Ajinomoto[11]**	Japan	Food products	1,676,035	1,252,760	52,514	417,416	9,000
282	265	**Hachette**	France	Publishing, printing	1,659,907[6]	800,092[6]	7,501[6]	192,766[6]	13,700[6]
283	310	**Béghin-Say**	France	Food products, paper products	1,658,854[10]	1,618,342[10]	25,412[10]	431,707[10]	8,634[10]
284	●	**Formosa Plastics Group**	Taiwan	Chemicals	1,652,720	N.A.	N.A.	N.A.	35,023
285	285	**Vale do Rio Doce[5]**	Brazil	Mining—iron	1,644,326	2,275,350	269,461	1,250,237	29,447
286	317	**Plessey[11]**	Britain	Electronics, appliances	1,638,096	1,217,791	76,133	535,244	52,962
287	307	**ICL[7]**	Britain	Office equipment (includes computers)	1,624,236	1,252,459	22,691	337,522	33,087
288	263	**ENSIDESA[5]**	Spain	Metal refining—steel	1,623,057	3,553,687	218,276	360,762	25,682
289	236	**SEAT[5]**	Spain	Motor vehicles	1,611,491	2,278,197	(287,005)	345,747	31,662
290	283	**Valeo[32]**	France	Motor-vehicle parts	1,607,087	1,307,386	17,356	291,385	30,300
291	296	**Dainippon Ink & Chemicals[11]**	Japan	Chemicals	1,604,716	1,314,480	21,688	196,636	9,248
292	278	**Coats Patons**	Britain	Textiles	1,603,267	1,384,120	77,258	716,745	60,000
293	241	**Hino Motors[11]**	Japan	Motor vehicles	1,594,354[10]	899,888[10]	22,840[10]	200,940[10]	8,009[10]
294	289	**Svenska Cellulosa**	Sweden	Paper and wood products	1,593,524	1,946,535	59,023	355,390	15,935
295	363	**AECI**	South Africa	Chemicals	1,588,324	1,393,835	158,922	675,596	26,300
296	244	**Seagram[24]**	Canada	Beverages	1,588,246	2,794,749	144,653	1,284,570	15,500
297	321	**Pohang Iron & Steel**	South Korea	Metal refining—steel	1,568,480[10]	3,522,906[10]	17,688[10]	665,385[10]	14,744[10]
298	264	**Nisshin Steel[11]**	Japan	Metal refining—steel	1,568,175	1,820,664	52,527	292,888	10,620
299	408	**Unitika[11]**	Japan	Textiles	1,567,598[10]	1,547,940[10]	(2,574)[10]	104,224[10]	8,293[10]
300	295	**Hanson Trust[7]**	Britain	Industrial equipment; food products	1,552,759	749,518	57,863	288,469	36,000

●Not on last year's list.

N.A. Not available.

[32] Name changed from Ferodo Groupe on May 25, 1980.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
301	261	**ARBED**	Luxembourg	Metal refining—steel	1,549,870[10]	2,333,646[10]	(54,117)[10]	575,020[10]	20,168[10]
302	311	**Alfa-Laval**	Sweden	Industrial and farm equipment	1,547,129	1,525,908	46,135	332,892	18,074
303	234	**Nissan Shatai[11]**	Japan	Motor vehicles	1,536,775[10]	479,729[10]	17,249[10]	141,099[10]	6,971[10]
304	294	**Swedish Match**	Sweden	Paper and wood products	1,533,744	1,227,152	21,755	233,200	22,950
305	328	**Distillers[11]**	Britain	Beverages	1,531,216	2,447,064	323,475	1,830,600	21,300
306	268	**Grundig[11]**	Germany	Electronics, appliances	1,531,184[17]	1,774,263[17]	15,200[17]	297,312[17]	35,979[17]
307	304	**Brooke Bond Liebig[9]**	Britain	Food products, beverages	1,523,840	900,974	30,748	502,096	70,000
308	257	**Holderbank Financière Glaris**	Switzerland	Building materials	1,517,892	2,752,383	107,325	738,303	18,734
309	290	**Jujo Paper[11]**	Japan	Paper and wood products	1,498,582	1,340,084	16,252	133,656	7,580
310	309	**Mjölkcentralen Arla[9]**	Sweden	Food products	1,495,600	468,493	7,106	92,186	7,411
311	270	**Daido Steel[9]**	Japan	Metal refining—steel	1,487,602	1,337,741	26,234	130,121	10,458
312	298	**Jacobs**	Switzerland	Food products	1,485,955	496,821	37,028	151,574	3,928
313	344	**Blue Circle Industries**	Britain	Building materials	1,482,054	2,484,321	106,276	1,777,416	N.A.
314	255	**Fuji Electric[11]**	Japan	Electronics, appliances	1,478,126	1,391,788	17,865	159,824	17,387
315	318	**Turner & Newall**	Britain	Chemicals, motor-vehicle parts	1,476,008	1,442,000	(46,743)	757,552	46,840
316	323	**Atlas Copco**	Sweden	Industrial equipment	1,472,451[6]	1,312,491[6]	25.491[6]	356,166[6]	18,786[6]
317	271	**GECAMINES[5]**	Zaire	Mining—copper, cobalt, zinc	1,469,942	2,521,336	247,150	733,817	38,116
318	314	**Rowntree MacKintosh**	Britain	Food products	1,464,633	987,708	40,773	581,024	30,000
319	305	**IMI**	Britain	Metal prod.; metal refin.—nonferrous	1,461,780	1,034,033	54,631	552,893	29,858
320	336	**SWEDYARDS (Svenska Varv)[5]**	Sweden	Shipbuilding, building materials	1,456,537	4,170,902	(260,212)	335,972	24,728
321	350	**Nippon Light Metal[11]**	Japan	Metal refining—aluminum	1,449,625	1,643,812	42,367	74,604	9,142
322	432	**Sunkyong**	South Korea	Chemicals, textiles	1,449,040	1,128,504	9,266	96,194	17,008
323	292	**Mobil Oil Italiana**	Italy	Petroleum	1,431,673	624,667	3,858	40,247	1,746
324	293	**Mitsui Mining[11]**	Japan	Mining—coal	1,428,641	976,575	4,983	36,735	1,549
325	446	**Zanussi Group**	Italy	Electronics, appliances	1,427,400[10]	N.A.	(2,340)[10]	151,200[10]	32,440[10]
326	389	**Northern Engineering Industries**	Britain	Industrial equipment, electronics	1,418,567	1,086,856	37,683	343,526	34,310
327	275	**Nippon Gakki[28]**	Japan	Musical instruments, sporting goods	1,417,464	1,013,417	40,159	375,379	15,592
328	313	**Domtar**	Canada	Paper and wood prod., bldg. materials	1,413,974	1,007,847	80,934	497,306	18,130
329	385	**Norddeutsche Affinerie[7]**	Germany	Metal refining—nonferrous	1,407,258[10]	386,247[10]	9,913[10]	103,160[10]	3,339[10]
330	320	**Sekisui Chemical[11]**	Japan	Chemicals; building materials	1,394,930	1,266,688	20,272	154,844	6,200
331	276	**Daihatsu Motor[9]**	Japan	Motor vehicles	1,392,972[10]	706,647[10]	19,406[10]	271,913[10]	9,105[10]
332	284	**Shiseido[21]**	Japan	Soaps, cosmetics	1,392,525	1,160,632	52,192	609,055	19,407
333	392	**Mitsui Petrochemical[11]**	Japan	Chemicals	1,380,850	1,282,716	28,047	153,832	5,370
334	355	**Glaxo Holdings[9]**	Britain	Pharmaceuticals	1,379,362	1,436,158	93,290	796,722	29,187
335	368	**S. Pearson & Son**	Britain	Publishing, ceramics	1,375,240	1,341,916	94,030	566,324	35,564
336	360	**Pilkington Brothers[11]**	Britain	Glass	1,371,987	2,024,784	150,068	1,256,904	35,000
337	274	**Hainaut-Sambre**	Belgium	Metal refining—steel	1,366,500	1,703,399	(189,277)	54,165	13,401
338	334	**KUKjE[33]**	South Korea	Rubber products, metal refining—steel	1,358,019	943,822	(12,490)	45,863	42,269
339	380	**Mitsui Mining & Smelting[11]**	Japan	Metal refining—nonferrous	1,356,563	1,250,984	19,424	93,984	8,545
340	335	**Honshu Paper[11]**	Japan	Paper and wood products	1,348,708	1,628,392	3,167	84,056	7,031
341	301	**Stahlwerke Röchling-Burbach**	Germany	Metal refining—steel	1,345,898[10]	1,499,862*[10]	4,352*[10]	253,355*[10]	21,700[10]
342	332	**Bosch-Siemens Hausgeräte**	Germany	Electronics, appliances	1,342,651[10]	500,493[10]	3,856[10]	151,760[10]	13,410[10]
343	405	**Chevron Oil Belgium**	Belgium	Petroleum	1,337,498[13]	521,253	34,044	324,578	744
344	333	**Thomas Borthwick & Sons[7]**	Britain	Food products	1,337,351	401,973	(29,460)	78,566	12,000
345	394	**Matra**	France	Aerospace, motor-vehicle parts	1,337,020[6]	1,915,188[6]	49,956[6]	227,430	35,000[6]
346	357	**Arthur Guinness[7]**	Britain	Beverages	1,329,931	1,305,689	50,828	568,583	22,452
347	473	**Northern Foods[7]**	Britain	Food products	1,319,525	725,335	50,200	397,077	19,346
348	326	**Dofasco[34]**	Canada	Metal refining—steel	1,318,753	1,548,538	104,552	810,936	14,100
349	●	**Sasol[9]**	South Africa	Chemicals; mining—coal	1,318,686	1,403,841	148,746	544,419	10,934
350	347	**Zahnradfabrik Friedrichshafen**	Germany	Motor-vehicle parts; industrial equipment	1,310,639	834,043	6,885	145,782	23,964

[33] Name changed from ICC on December 1, 1980.

[34] Name changed from Dominion Foundries & Steel on October 6, 1980.

THE 500 LARGEST INDUSTRIALS OUTSIDE THE U.S.

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
351	396	**Boliden**	Sweden	Mining—copper, lead, zinc, silver; met. refin.	1,307,726	1,122,965	6,881	165,704	9,580
352	281	**Meiji Milk Products**[11]	Japan	Food products	1,307,233	483,676	6,852	96,052	6,484
353	340	**Heineken**	Netherlands	Beverages	1,301,456[6]	1,465,088[6]	41,876[6]	652,980[6]	20,532[6]
354	●	**Ford**	Spain	Motor vehicles	1,298,986[13]	115,284	6,278	252,400	9,714
355	377	**Whitbread**[14]	Britain	Beverages	1,297,890	1,658,276	118,590	1,002,245	40,916
356	379	**W.C. Heraeus**	Germany	Metal refining	1,297,843	371,626	13,640	100,546	6,308
357	306	**Nisshin Flour Milling**[11]	Japan	Food products	1,296,365	473,100	22,641	145,604	3,689
358	3[illegible]6	**Rütgerswerke**	Germany	Chemicals, building materials	1,274,885	578,246	18,045	135,106	11,955
359	423	**Sumitomo Metal Mining**[11]	Japan	Metal refining—nonferrous	1,269,660	1,095,112	29,043	105,028	4,300
360	302	**Koninklijke Wessanen**	Netherlands	Food products	1,262,298	377,284	8,613	131,077	3,668
361	329	**Magirus-Deutz**	Germany	Motor vehicles	1,257,966[10]	1,021,861[10]	(92,279)[10]	131,745[10]	11,870[10]
362	338	**Canadian General Electric**	Canada	Electronics, appliances	1,253,715[13]	800,930	38,424	335,231	20,213
363	339	**Daishowa Paper**[11]	Japan	Paper and wood products	1,250,650	2,159,836	13,508	95,072	5,455
364	399	**Standard Telephones & Cables**	Britain	Electronics, appliances	1,250,458	833,780	66,626	388,609	27,312
365	341	**Pioneer Electronic**[7]	Japan	Electronics, appliances	1,247,995[17]	974,833[17]	82,827[17]	562,633[17]	9,230[17]
366	366	**PWA**	Germany	Paper and wood products	1,247,920[6]	722,946[6]	14,382[6]	126,784[6]	11,299[6]
367	364	**Rheinische Braunkohlenwerke**	Germany	Mining—coal	1,246,960[10]	2,182,017[10]	2,755[10]	209,271[10]	16,631[10]
368	337	**Freudenberg**	Germany	Chemicals, textiles	1,237,366[*]	N.A.	N.A.	N.A.	23,900[6]
369	354	**Delta Group**[35]	Britain	Electronics; metal products	1,235,549	887,251	(1,186)	381,380	26,975
370	427	**Tiger Oats & National Milling**	South Africa	Food products	1,231,739	705,762	52,864	306,488	20,515
371	367	**SNECMA**[5]	France	Aerospace	1,226,989	2,171,927	15,240	309,096	19,877
372	●	**Anomina Petroli Italiana**	Italy	Petroleum	1,217,287	311,835	470	62,340	1,046
373	384	**Dickinson Robinson Group**	Britain	Paper and wood products	1,209,968	751,341	0	237,467	25,328
374	291	**Hitachi Shipbuilding & Eng.**[11]	Japan	Shipbuilding; industrial equipment	1,207,427	2,615,080	371	235,208	20,514
375	345	**Rijn-Schelde-Verolme**	Netherlands	Shipbuilding, transportation equipment	1,204,952	2,129,657	(14,466)	185,148	25,886
376	393	**Korea Explosives Group**	South Korea	Petroleum, chemicals	1,200,645	888,706	(14,316)	97,491	13,650
377	445	**Nokia**	Finland	Metal prod.; rubber; paper prod.; elect.	1,199,624	1,001,536	10,684	176,037	20,502
378	351	**Linde**	Germany	Industrial equipment	1,198,128[6]	1,529,265[6]	23,396[6]	263,555[6]	15,765[6]
379	453	**Valores Industriales**	Mexico	Beverages; food products; packaging	1,195,296	1,708,673	66,078	666,139	
380	409	**Douwe Egberts**[9]	Netherlands	Food products	1,193,812[6]	691,502[6]	57,664[6]	334,945[6]	6,265[6]
381	362	**Consolidated-Bathurst**	Canada	Paper and wood products	1,188,340	951,492	104,667	408,387	17,022
382	402	**BTR**	Britain	Industrial equipment	1,185,638	1,112,388	103,386	529,159	24,600
383	348	**Nichiro Gyogyo**[21]	Japan	Food products	1,183,296	808,311	(11,143)	32,174	8,206
384	319	**Abitibi-Price**	Canada	Paper and wood products	1,167,183	1,166,829	77,493	517,342	20,000
385	322	**Nippon Meat Packers**[24]	Japan	Food products	1,166,533	554,545	33,651	258,170	8,330
386	373	**Boehringer Ingelheim**	Germany	Pharmaceuticals, chemicals	1,147,566[6]	1,015,954[6]	29,750[6]	419,556[6]	14,414[6]
387	437	**Vickers**	Britain	Indus. equip; motor vehi., publ. and printg.	1,146,946	1,191,394	25,813	509,574	29,425
388	342	**Ricoh**[11]	Japan	Office equipment (includes computers)	1,146,028	871,520	62,404	306,328	15,300
389	343	**Reemtsma Cigarettenfabriken**	Germany	Tobacco, beverages	1,143,179	1,016,026	26,722	259,942	11,703
390	356	**Dollfus-Mieg**	France	Textiles	1,136,350	811,290	(17,550)	136,051	21,318
391	●	**Petroliber**[6]	Spain	Petroleum	1,135,569	593,466	10,292	83,024	685
392	358	**Axel Springer**	Germany	Publishing, printing	1,132,049[17]	386,029[17]	11,845[17]	86,996[17]	11,980[17]
393	327	**General Motors-Holden's**	Australia	Motor vehicles	1,129,581	N.A.	(147,921)	N.A.	19,838
394	374	**Siderúrgica Nacional**[6]	Brazil	Metal refining—steel	1,126,454[10]	3,011,873[10]	10,898[10]	924,092[10]	N.A.
395	390	**Usines Chausson**	France	Motor vehicles	1,121,380	556,675	(2,319)	99,362	16,000
396	297	**Meiji Seika**[11]	Japan	Food prod., beverages, pharmaceuticals	1,119,515	634,512	6,988	190,028	5,975
397	381	**Yokohama Rubber**	Japan	Rubber products	1,115,470	988,817	7,558	106,764	11,936
398	372	**Ford Brasil**[18]	Brazil	Motor vehicles	1,104,840[13]	503,028	23,188	146,427	20,800
399	403	**Enso-Gutzeit**[6]	Finland	Paper and wood products	1,103,873	1,752,575	9,303	400,757	17,619
400	325	**Morinaga Milk Industry**[11]	Japan	Food products	1,098,347	475,608	2,998	63,340	4,747

●Not on last year's list.

N.A. Not available.

[*] Fortune estimate.

[35] Name changed from Delta Metal on March 3, 1981

RANK '80	RANK '79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
401	412	Husky Oil	Canada	Petroleum	1,096,968	1,173,827	78,755	427,046	3,768
402	398	AGA	Sweden	Chemicals; gases	1,094,218	1,126,228	12,840	226,742	14,671
403	365	Tokyo Sanyo Electric[21]	Japan	Electronics, appliances	1,091,838	984,092	33,980	306,830	9,112
404	370	Nissan Diesel Motor[11]	Japan	Motor vehicles	1,090,287[10]	774,767[10]	13,325[10]	110,913[10]	6,300[10]
405	388	Kyowa Hakko Kogyo	Japan	Chemicals, pharmaceuticals	1,088,610	1,042,632	17,157	210,979	6,612
406	391	Sumitomo Heavy Industries[11]	Japan	Industrial equipment; shipbuilding	1,087,059	1,750,728	(62,924)	87,624	10,000
407	395	Carl-Zeiss-Stiftung[7]	Germany	Measuring and scientific equip.; glass	1,086,643	941,896	1,499	133,619	25,178
408	401	Carnaud	France	Metal products	1,085,068	719,143	12,437	145,501	13,348
409	404	Kugelfischer Georg Schäfer	Germany	Metal products	1,074,705	933,549	6,028	80,037	25,069
410	359	Kao Soap[11]	Japan	Soaps, cosmetics	1,073,700	776,200	21,190	241,928	4,203
411	422	F.L. Smidth	Denmark	Industrial equipment	1,072,986[6]	1,685,422[6]	28,224[6]	321,151[6]	9,237[6]
412	375	Yoshida Kogyo[11]	Japan	Building materials; metal products	1,061,753	1,519,088	73,416	254,636	13,006
413	383	Steyr-Daimler-Puch	Austria	Motor vehicles	1,061,660[10]	N.A.	N.A.	N.A.	18,945[10]
414	477	Butano[5]	Spain	Petroleum	1,059,663	537,015	8,429	188,063	3,607
415	438	Kuraray[11]	Japan	Chemicals	1,057,125	1,148,912	4,562	62,748	8,500
416	376	Eschweiler Bergwerks-Verein	Germany	Mining—coal	1,057,088	734,038	(36)	108,595	19,605
417	406	SEITA[5]	France	Tobacco	1,056,028*[10]	1,453,064[10]	(47,445)*[10]	564,368[10]	10,030[10]
418	●	Suncor	Canada	Petroleum	1,050,956	1,449,392	262,055	922,812	4,620
419	419	Molson[11]	Canada	Beverages	1,033,176	592,595	43,691	229,955	12,481
420	415	FMC[28]	Britain	Food products	1,031,558	153,646	1,851	48,436	6,400
421	●	Hispanoil (Hispanica de Petroleos)[5]	Spain	Petroleum	1,027,214	329,041	7,879	15,144	422
422	353	Thyssen-Bornemisza	Neth. Antilles	Metal prod., packaging; farm equipment	1,025,815	986,194	68,552	390,747	14,500
423	400	Georg Fischer	Switzerland	Industrial equipment; steel castings	1,025,732	961,677	9,553	311,608	16,858
424	444	Svenska Fläktfabriken	Sweden	Industrial equipment	1,020,936	932,777	9,317	100,354	12,410
425	417	Denki Kagaku Kogyo[11]	Japan	Chemicals	1,017,926	1,002,268	16,191	137,712	5,254
426	349	General Motors do Brasil	Brazil	Motor vehicles	1,016,006[13]	849,584	123,700	243,176	21,279
427	471	John Brown[11]	Britain	Industrial equipment	1,010,003	661,347	29,274	198,264	N.A.
428	●	Amatil[15]	Australia	Tobacco, food products	1,009,573	725,674	32,076	331,034	12,800
429	413	Stora Kopparbergs Bergslags	Sweden	Paper and wood products	1,009,254	1,619,918	28,518	316,417	9,931
430	397	Australian Consolidated Indus.[11]	Australia	Building materials	1,007,690	1,018,522	45,155	423,309	22,554
431	410	Lesieur	France	Food products, soaps	1,005,122	407,829	24,532	134,480	5,495
432	464	Associated Engineering[7]	Britain	Motor-vehicle parts	1,002,270	833,540	(2,496)	351,128	27,298
433	●	Chrysler de Mexico	Mexico	Motor vehicles	1,001,795[13]	431,361	30,124	150,164	9,490
434	449	British Sugar[7]	Britain	Food products	997,006	864,605	68,523	589,916	6,191
435	433	Wellcome Foundation[23]	Britain	Pharmaceuticals	996,338	1,100,902	79,338	611,826	18,254
436	439	John Labatt[23]	Canada	Food products, beverages	995,614	565,659	31,001	213,572	13,100
437	387	Chiyoda Chemical Eng. & Const.[7]	Japan	Industrial equipment	993,079	1,354,417	30,257	190,832	3,498
438	382	Nihon Cement[28]	Japan	Building materials	985,197	1,247,563	14,740	164,546	5,904
439	369	Ito Ham Provisions[14]	Japan	Food products	984,471	418,063	25,556	191,978	4,992
440	407	USIMINAS[5]	Brazil	Metal refining—steel	980,669	1,982,198	9,360	385,891	17,647
441	443	Dome Petroleum	Canada	Petroleum	978,046	4,251,764	245,592	978,977	3,042
442	378	Onoda Cement[11]	Japan	Building materials	976,673[10]	1,127,774[10]	11,417[10]	149,952[10]	2,810[10]
443	420	Konishiroku Photo Industry[30]	Japan	Photographic equipment	969,725	844,779	20,702	179,431	7,691
444	●	Ford Motor	Mexico	Motor vehicles	968,436[13]	497,173	20,849	161,447	7,888
445	●	Lion	Japan	Chemicals; soaps, cosmetics	965,988	572,481	11,965	207,476	4,218
446	458	Esselte[11]	Sweden	Office equipment; publishing and printing	963,044	783,780	30,460	141,448	14,465
447	450	Dansk Esso	Denmark	Petroleum	960,461	368,933	4,181	127,975	1,184
448	440	Albright & Wilson	Britain	Chemicals	958,917[13]	613,020	(12,353)	345,521	9,200
449	418	Bekaert Group	Belgium	Metal products—steel wire	955,190	670,674	10,032	257,901	13,078
450	428	Empresa Colombiana de Petróleos[5]	Colombia	Petroleum	952,177	1,086,874	(5,383)	N.A.	7,572

[30] Figures are for fiscal year ending April 20, 1980.

RANK '80	'79	COMPANY	COUNTRY	INDUSTRY	SALES ($000)	ASSETS ($000)	NET INCOME ($000)	STOCK-HOLDERS' EQUITY ($000)	EMPLOYEES
451	442	**Toyo Soda Manufacturing[11]**	Japan	Chemicals	952,136	1,064,308	16,554	127,868	6,000
452	●	**Industrias Peñoles**	Mexico	Mining; metal manufacturing	946,033	677,312	78,570	182,642	10,377
453	●	**MIM Holdings[9]**	Australia	Mining—copper, silver, lead, zinc, nickel	943,410	1,312,653	226,817	657,850	7,374
454	467	**Fuji Kosan[11]**	Japan	Petroleum	942,813[10]	778,005[10]	13,755[10]	36,342[10]	948[10]
455	482	**TDK Electronics[21]**	Japan	Electronics, appliances	940,706	910,828	93,176	494,335	10,278
456	411	**Mitsubishi Rayon[11]**	Japan	Textiles, chemicals	933,439	886,792	26,779	93,596	3,561
457	441	**Fisons**	Britain	Chemicals, pharmaceuticals	927,262	785,221	(39,132)	348,536	11,308
458	●	**Esso Chimie**	France	Chemicals	922,973[10]	266,393[10]	45,119[10]	124,715[10]	1,184[10]
459	447	**Tchibo Frisch-Röst-Kaffee**	Germany	Food products	921,961[10]	680,117[10]	29,750[10]	196,411[10]	3,815[10]
460	475	**Mitsubishi Gas Chemical[11]**	Japan	Chemicals	921,432	848,124	23,948	170,916	4,320
461	416	**Sidmar**	Belgium	Metal refining—steel	918,546	1,013,688	388	214,028	6,306
462	426	**Toyoda Automatic Loom Works[11]**	Japan	Motor vehicles, industrial equipment	910,798[10]	528,191[10]	42,623[10]	246,794[10]	5,342[10]
463	466	**Bofors**	Sweden	Metal products	903,126	1,147,221	27,099	102,955	13,450
464	484	**Mo och Domsjö**	Sweden	Paper and wood products	901,140	981,425	7,874	201,369	7,585
465	429	**VMF-Stork**	Netherlands	Industrial equipment	899,087	505,389	(12,975)	85,168	15,074
466	430	**Kanto Auto Works[11]**	Japan	Motor vehicles	896,999[10]	204,302[10]	8,503[10]	52,056[10]	5,218[10]
467	460	**Rengo[11]**	Japan	Paper and wood products	892,116	508,521	12,365	73,056	4,548
468	492	**Rauma-Repola**	Finland	Paper and wood products; shipbuilding	891,624[10]	1,409,703[10]	14,883[10]	198,055[10]	18,008[10]
469	497	**A. Ahlström**	Finland	Paper and wood products	889,914	1,028,112	8,390	165,695	13,985
470	●	**Générale Sucrière[7]**	France	Food products	888,946[10]	317,891[10]	31,246[10]	124,766[10]	4,632[10]
471	424	**Aisin Seiki[11]**	Japan	Motor-vehicle parts	882,050[10]	480,984[10]	32,705[10]	210,896[10]	7,169[10]
472	448	**Fichtel & Sachs**	Germany	Industrial equipment	880,591[6]	504,328[6]	N.A.	133,923[6]	18,036[6]
473	316	**Mitsui Engineering & Shipbldg.[11]**	Japan	Shipbldg., transportation equip., industrial equip.	879,159[10]	1,711,594[10]	(1,032)[10]	228,221[10]	11,693[10]
474	●	**Federale Volksbeleggings Beperk[11]**	South Africa	Food products, chemicals	876,865	714,230	47,947	186,231	34,718
475	481	**Cehave[9]**	Netherlands	Food products	876,666	314,500	5,932	117,204	2,287
476	425	**Valmet[9]**	Finland	Industrial and farm equipment; shipbuilding	874,365	1,390,362	(8,792)	155,955	17,185
477	468	**Interfood**	Switzerland	Food products	874,242	415,759	8,870	140,318	8,141
478	456	**Södra Skogsägarna**	Sweden	Paper and wood products	872,693	937,112	(1,537)	72,287	8,638
479	●	**Redland[11]**	Britain	Building materials	865,770	694,721	55,032	262,591	13,443
480	454	**Uddeholm**	Sweden	Metal refining—steel	865,527	1,015,926	(1,632)	211,295	9,575
481	479	**Pernod Ricard**	France	Beverages	864,987	961,967	61,421	505,477	7,200
482	459	**Euroc**	Sweden	Building materials; industrial equipment	864,321	820,763	15,158	157,170	10,615
483	465	**Diehl**	Germany	Metal products	860,338	606,038	N.A.	74,957	14,814
484	486	**Chemie Linz[5]**	Austria	Chemicals	859,725[10]	562,230[10]	N.A.	181,906[10]	7,432[10]
485	●	**Nixdorf Computer**	Germany	Office equipment (includes computers)	857,949[6]	1,091,416[6]	22,259[6]	229,089[6]	13,650[6]
486	421	**Nippon Seiko[28]**	Japan	Industrial equipment, motor-vehicle parts	857,138	915,152	34,144	192,280	7,006
487	●	**Altos Hornos de Mexico[5]**	Mexico	Metal refining—steel	855,974	2,304,098	22,243	491,618	28,790
488	●	**MTU**	Germany	Motor vehicles	854,641	812,524	363	76,893	12,696
489	431	**Liebherr-Holding**	Germany	Industrial equipment	852,541	381,311	18,673	119,958	7,626
490	476	**Du Pont Canada**	Canada	Chemicals; textiles	851,287	531,305	43,218	229,562	6,000
491	●	**Kodak[18]**	Britain	Photographic equipment	846,869[13]	644,995	81,399	391,382	10,591
492	●	**Scottish & Newcastle Breweries[28]**	Britain	Beverages	843,474	1,049,751	63,584	586,984	27,830
493	●	**Chloride Group[11]**	Britain	Motor-vehicle parts	842,169	670,680	15,923	256,176	21,306
494	470	**Schindler Holding**	Switzerland	Transportation equipment	841,661	597,594	13,314	225,846	21,758
495	●	**Kodak-Pathé**	France	Photographic equipment	840,391[10]	589,112[10]	20,139[10]	323,033[10]	8,741[10]
496	457	**Tootal[18]**	Britain	Textiles	836,943	629,229	18,300	283,673	26,740
497	436	**Niigata Engineering[11]**	Japan	Industrial equipment; shipbuilding	836,079	802,880	13,254	152,192	6,819
498	●	**Gulf Oil Great Britain**	Britain	Petroleum	832,769[13]	N.A.	N.A.	N.A.	1,000
499	478	**Glynwed**	Britain	Metal products; building materials	828,278	464,426	19,551	167,134	17,458
500	461	**Olida & Caby**	France	Food products	826,168[6]	238,735[6]	4,211[6]	62,270[6]	9,540[6]
		TOTALS			**1,772,877,477**	**1,517,821,217**	**41,921,681**	**416,040,568**	**18,427,470**

●Not on last year's list.

N.A. Not available.

PERSPECTIVES ON THE 500

CHANGES IN SALES

THE TEN BIGGEST INCREASES

	SALES RANK	
Statoil	266	170.4%
Lucky Group	101	152.9
Hiram Walker Resources	241	151.4
Dalgety	106	120.0
Pemex (Petróleos Mexicanos)	20	103.2
Ssangyong Cement Ind.	275	96.3
Genstar	235	83.0
General Motors-Holden's	393	82.2
Petroliber	391	80.9
Lion	445	80.3

THE TEN BIGGEST DECREASES

Mitsui Eng. & Shipbldg.	473	30.8%
Haci Ömer Sabanci Holding	234	24.6
Chrysler Canada	273	21.4
Ford-Werke	89	19.6
Meiji Seika	396	17.1
Adam Opel	81	14.8
Hitachi Shipbldg. & Eng.	374	12.5
Morinaga Milk Industry	400	10.5
Nissan Shatai	303	10.4
Ford Motor of Canada	73	10.2

THE INDUSTRY MEDIANS

	INCREASES
Aerospace	43.2%
Petroleum	43.2
Measuring and scientific equipment	28.0
Beverages	24.6
Tobacco	18.2
Mining	18.0
Rubber products	17.9
Chemicals	16.7
Pharmaceuticals	15.3
Metal products	15.1
Food products	14.9
Office equipment (includes computers)	14.9
Building materials	14.7
Paper and wood products	13.4
Metal refining	12.9
Industrial and farm equipment	12.7
Electronics, appliances	12.5
Shipbuilding, transportation equipment	10.2
Motor vehicles and parts	7.3
Textiles	6.8
Publishing, printing	6.4

CHANGES IN PROFITS

THE TEN BIGGEST INCREASES*

	SALES RANK	
Nippon Light Metal	321	27,773.0%
Tabacalera	164	12,811.0
Mitsubishi Oil	105	3,962.4
Aérospatiale	147	1,336.2
Sumitomo Metal Mining	359	1,165.5
Daikyo Oil	124	1,026.5
Vale do Rio Doce	285	658.0
Johnson Matthey	249	456.9
Koa Oil	236	453.1
Zambia Industrial & Mining	170	397.8

THE TEN BIGGEST DECREASES*

Unión Explosives Río Tinto	240	98.9%
Sidmar	461	98.4
Kanebo	227	93.8
Chinese Petroleum	75	93.5
Bowater	110	92.1
Volvo	69	90.6
Koç Holding	218	89.0
Saarbergwerke	149	81.6
YPF (Yacimientos Petrolíferos)	90	81.5
Carl-Zeiss-Stiftung	407	81.4

* Listings exclude money losers.

THE INDUSTRY MEDIANS

	INCREASES
Shipbuilding, transportation equipment	65.5 %
Mining	56.1
Measuring and scientific equipment	51.0
Building materials	27.5
Metal refining	23.1
Aerospace	18.4
Publishing, printing	15.4
Pharmaceuticals	14.3
Electronics, appliances	13.3
Industrial and farm equipment	13.1
Paper and wood products	9.3
Beverages	1.9
	DECREASES
Rubber products	48.8
Textiles	43.7
Motor vehicles and parts	33.7
Tobacco	14.8
Metal products	4.9
Petroleum	2.7
Food products	2.4
Office equipment (includes computers)	2.2
Chemicals	1.0

THE MONEY LOSERS

	SALES RANK	LOSS
British Steel*	57	3,891,296
BL*	59	1,245,316
Italsider*	104	873,700
Montedison	35	524,160
Sacilor*	117	469,984
Rhône-Poulenc	51	461,303
Peugeot	14	348,998
British Shipbuilders*	263	332,102
Usinor	79	296,963
SEAT*	289	287,005
Cockerill*	135	269,582
SWEDYARDS (Svenska Varv)	320	260,212
Ford-Werke	89	254,979
ESTEL*	53	245,851
Massey-Ferguson	146	225,200
Guest, Keen & Nettlefolds	100	209,064
Vauxhall Motors*	261	193,825
Hainaut-Sambre*	337	189,277
Chrysler Canada*	273	166,372
AEG-Telefunken*	58	163,847
Northern Telecom	267	158,358
General Motors-Holden's	393	147,921
Magirus-Deutz*	361	92,279
Alfa Romeo*	202	88,218
VÖEST-Alpine*	98	65,026
Sumitomo Heavy Ind.	406	62,924
Rolls-Royce*	157	62,789
Korea Oil	139	54,589
ARBED*	301	54,117
Charbonnages de France	85	50,182
Salzgitter*	88	48,668
SEITA*	417	47,445
Turner & Newall	315	46,743
Imperial Chemical Ind.	24	46,510
Tube Investments	173	43,487
Ford Motor of Canada	73	42,592
Fisons	457	39,132
Akzo Group	63	35,057
SSAB (Svenskt Stal)*	269	34,998
Schneider	46	30,517
Thomas Borthwick & Sons	344	29,460
Union Laitière Normande	276	18,087
Dollfus-Mieg	390	17,550
Vallourec*	168	15,015
Union International	196	14,865
Rijn-Schelde-Verolme*	375	14,466
Korea Explosives Group	376	14,316
Idemitsu Kosan	38	13,736
VMF-Stork*	465	12,975
KUKjE	338	12,490
Albright & Wilson	448	12,353
Nichiro Gyogyo	383	11,143
Valmet	476	8,792
Klöckner-Werke*	167	5,487
Empresa Colombiana de Petróleos*	450	5,383
Unitika	299	2,574
Associated Engineering	432	2,496
Zanussi Group	325	2,340
Usines Chausson	395	2,319
Petronor	250	1,810
Uddeholm*	480	1,632
Södra Skogsägarna*	478	1,537
Delta Group	369	1,186
Mitsui Eng. & Shipbldg.*	473	1,032
Maruzen Oil*	67	992
Eschweiler Bergwerks-Verein*	416	36

* Also lost money in 1979.

ARRIVALS AND DEPARTURES

NEWCOMERS AND RETURNEES*

	1979 SALES RANK
Adam Opel (1978: 47)	81
Altos Hornos de Mexico	487
Amatil	428
Anomina Petroli Italiana	372
Chloride Group (1976: 447)	493
Chrysler de Mexico	433
Dalgety	106
Empresa Nacional del Petróleo	270
Esso Chimie	458
Federale Volksbeleggings Beperk	474
Ford (Spain)	354
Ford Motor (Mexico)	444
Formosa Plastics Group	284
Générale Sucrière (1978: 437)	470
Genstar (1976: 259)	235
Gulf Oil Great Britain	498
Hispanoil (Hispanica de Petróleos)	421
Industrias Peñoles	452
Kodak	491
Kodak-Pathé (1975: 481)	495
Lion	445
MIM Holdings	453
MTU	488
Mobil Oil Française (1978: 330)	247
Nixdorf Computer	485
Petroliber (Cia. Ibérica Refinadora de Petróleos) (1976: 482)	391
Redland (1975: 490)	479
Sasol	349
Scottish & Newcastle Breweries (1976: 466)	492
Statoil	266
Suncor	418
Taiyo Fishery (1978: 64)	103
Türkiye Petrolleri (1978: 149)	97

*Figures in parentheses indicate year and sales rank the last time the company was listed.

DEPARTURES

	1979 SALES RANK
ASUAG (Société Générale de l'Horlogerie Suisse)	485
Aker Group	487
Altos Hornos de Vizcaya	474
Associated Biscuit Manufacturers	500
British National Oil[1]	43
Citizen Watch	493
CII Honeywell Bull[2]	330
DAF Trucks	463
Dansk Landbrugs Grovvareselskab[1]	451
Deutsche Marathon Petroleum	414
Dillinger Hüttenwerke[3]	371
Dunlop Australia	489
EMI[2]	229
ES Group (Elkem-Spigerverkt)	494
Gränges[2]	331
Gunze	498
Industrias Reunidas F. Matarazzo	490
KemaNobel	452
Mitsubishi Mining & Cement[1]	308
Nihon Nosan Kogyo	480
NTN Toyo Bearing	495
Porsche	491
Prima Meat Packers	469
Shionogi	483
Showa Sangyo	496
Spillers[2]	287
Superfos	499
Tate & Lyle[1]	156
Telefonbau und Normalzeit	488
Toa Oil	303
Toyota Auto Body	434
United Breweries	455

[1] The company is no longer classified as an industrial.

[2] The company's figures are consolidated in another listed company.

[3] The company's results are not yet published.

THE 500 BY COUNTRY

	RANK BREAKDOWN								
	1-100	101-200	201-300	301-400	401-500	Total	LARGEST COMPANY	SALES ($000)	RANK
Argentina	1	0	0	0	0	1	YPF (Yacimientos Petrolíferos Fiscales)	4,784,103	90
Australia	0	2	0	1	3	6	Broken Hill Proprietary	4,163,029	107
Austria	1	1	0	0	2	4	VÖEST-Alpine	4,484,173	98
Belgium	2	3	0	2	2	9	Petrofina	9,759,894	32
Brazil	1	0	1	2	2	6	Petrobrás (Petróleo Brasileiro)	14,836,326	19
Britain	14	22	19	19	14	88	British Petroleum	48,035,941	2
Britain-Italy	1	0	0	0	0	1	Dunlop Pirelli Union	7,511,430	48
Britain-Netherlands	1	0	0	0	0	1	Unilever	23,607,516	6
Canada	5	6	10	5	6	32	Canadian Pacific	8,539,483	40
Chile	0	0	2	0	0	2	CODELCO-CHILE	2,280,767	204
Colombia	0	0	0	0	1	1	Empresa Colombiana de Petróleos	952,177	450
Denmark	0	0	0	0	2	2	F. L. Smidth	1,072,986	411
Finland	0	1	0	2	3	6	Neste	3,596,391	131
France	14	8	8	4	8	42	Française des Pétroles	23,940,355	5
Germany	21	10	7	15	9	62	Volkswagenwerk	18,339,046	11
India	1	0	1	0	0	2	Indian Oil	4,605,396	94
Israel	0	1	0	0	0	1	Koor Industries	2,362,429	197
Italy	3	3	2	3	0	11	ENI	27,186,939	3
Japan	17	22	31	25	26	121	Toyota Motor	14,233,779	22
Kuwait	1	0	0	0	0	1	Kuwait National Petroleum	4,564,949	96
Luxembourg	0	0	0	1	0	1	ARBED	1,549,870	301
Mexico	1	0	1	1	4	7	Pemex (Petróleos Mexicanos)	14,813,514	20
Netherlands	4	1	0	4	2	11	Philips' Gloeilampenfabrieken	18,402,818	10
Netherlands-Antilles	1	0	0	0	1	2	Schlumberger	4,883,944	86
Netherlands-Britain	1	0	0	0	0	1	Royal Dutch/Shell Group	77,114,243	1
Norway	0	1	1	0	0	2	Norsk Hydro	2,835,591	165
Philippines	0	1	0	0	0	1	Philippine National Oil	2,470,638	193
Portugal	0	0	1	0	0	1	PETROGAL (Petróleos de Portugal)	2,164,789	216
South Africa	0	3	1	2	1	7	Barlow Rand	4,051,657	114
South Korea	1	3	3	3	0	10	Hyundai Group	5,540,543	72
Spain	1	2	4	2	2	11	ENPETROL	5,275,030	76
Sweden	2	5	4	6	9	26	Volvo	5,628,743	69
Switzerland	3	4	1	2	3	13	Nestlé	14,615,187	21
Taiwan	1	0	1	0	0	2	Chinese Petroleum	5,373,416	75
Turkey	1	0	2	0	0	3	Türkiye Petrolleri	4,515,629	97
Venezuela	1	0	0	0	0	1	Petróleos de Venezuela	18,818,931	8
Zaire	0	0	0	1	0	1	GECAMINES	1,469,942	317
Zambia	0	1	0	0	0	1	Zambia Industrial & Mining	2,744,409	170

THE FORTUNE DIRECTORY OF THE 50 LARGEST COMMERCIAL-BANKING COMPANIES OUTSIDE THE UNITED STATES

(Ranked by assets)

One of France's four huge government-owned banks has led FORTUNE's ranking of the 50 largest banks outside the U.S. in six of the last seven years. This year, for the first time, the Gallic quadrumvirate swept the top four slots, bumping mighty Deutsche Bank from third place. First place went to Banque Nationale de Paris, which exchanged ranks with Crédit Agricole, the No. 1 bank for the three previous years.

Much of the movement along the list reflects the decline of the deutsche mark and the comparative strength of the yen against the dollar. Assets of Japanese banks as a group rose 18%, and Japan continued to dominate the list with 16 representatives. Only one—Norinchukin—shows a drop in dollar-denominated assets: the yen was declining against the dollar when its fiscal year ended in March 1980. That month Japan's central bank gave the industry a boost by announcing it would abolish lending restrictions and reduce reserve requirements to get the economy moving.

At about the same time, West Germany's central Bundesbank slammed on the brakes, despite sluggish economic growth, because of balance-of-payments worries. Feeling pressure from rising U.S. interest rates and suffering from a large current-account deficit, the Bundesbank closed one of its lending windows in February, cutting off a source of daily money to the commercial banks.

This helps explain Deutsche Bank's descent to seventh place. The biggest loser, however, was Commerzbank. While most of the German banks registered declines in dollar-denominated assets—the drop for the group was 5%—Commerzbank's assets shrank even when counted in deutsche marks. This is rare; when figured in local currencies, assets of these very large banks are practically always up. Aside from Commerzbank, there have been only three exceptions since FORTUNE began recording the figures seven years ago. Commerzbank's profits dropped by 77%, and not surprisingly it skipped its dividend.

The list's asset-growth champion is a newcomer to the top 50, Hongkong & Shanghai Banking. Helped by the acquisition of Marine Midland, 13th-largest bank in the U.S., the assets of the Hong Kong bank rose 87%. It revealed still further global designs last year by entering the bidding for the Royal Bank of Scotland (assets: $11 billion). The offer was rebuffed in favor of one by another newcomer to the list, Britain's Standard Chartered Bank.

—LYNN FLEARY

RANK '80	RANK '79	BANK	COUNTRY	ASSETS[1] ($000)
1	2	Banque Nationale de Paris[7]	France	107,449,631
2	1	Caisse Nationale de Crédit Agricole[7]	France	105,906,369
3	4	Crédit Lyonnais[7]	France	98,147,449
4	5	Société Générale[7]	France	90,164,865
5	8	Barclays Bank	Britain	88,624,733
6	6	Dai-Ichi Kangyo Bank[9,10]	Japan	88,519,780
7	3	Deutsche Bank[8]	Germany	88,468,402
8	9	National Westminster Bank	Britain	82,585,341
9	12	Mitsubishi Bank[9,10]	Japan	76,433,197
10	10	Fuji Bank[9,10]	Japan	75,396,945
11	11	Sumitomo Bank[9,10]	Japan	73,459,526
12	14	Sanwa Bank[9,10]	Japan	70,268,863
13	7	Dresdner Bank[8]	Germany	62,595,548
14	26	Midland Bank	Britian	60,543,710
15	18	Industrial Bank of Japan[9,10]	Japan	60,475,895
16	13	Westdeutsche Landesbank Girozentrale[7]	Germany	57,898,325
17	16	Cie Financière de Suez[12]	France	57,279,713
18	19	Bank of Tokyo[9,13]	Japan	55,861,833
19	28	Royal Bank of Canada[14]	Canada	53,462,183
20	32	Mitsui Bank[9,10]	Japan	52,821,868
21	21	Cie Financière de Paris et des Pays-Bas[12]	France	52,282,105
22	20	Banco do Brasil[7]	Brazil	52,238,425
23	31	Tokai Bank[9,10]	Japan	50,998,711
24	15	Commerzbank[8]	Germany	50,685,657
25	24	Algemene Bank Nederland	Netherlands	50,576,613
26	23	Banca Nazionale del Lavoro[7]	Italy	48,810,710
27	35	Long-Term Credit Bank of Japan[9,10]	Japan	47,849,632
28	38	Lloyds Bank	Britain	47,459,874
29	●	Hongkong & Shanghai Banking	Hong Kong	47,267,079
30	17	Norinchukin Bank[13]	Japan	47,253,640
31	37	Canadian Imperial Bank of Commerce[14]	Canada	47,161,107
32	22	Bayerische Vereinsbank[8]	Germany	46,411,995
33	36	Taiyo Kobe Bank[9,10]	Japan	45,969,899
34	25	Rabobank	Netherlands	45,375,800
35	27	Amsterdam-Rotterdam Bank	Netherlands	43,858,200
36	33	Union Bank of Switzerland[10]	Switzerland	43,371,650
37	34	Bayerische Hypotheken-und Wechsel-Bank[8]	Germany	42,485,606
38	29	Bayerische Landesbank Girozentrale[10]	Germany	42,224,952
39	45	Bank of Montreal[14]	Canada	41,557,310
40	30	Swiss Bank Corp.[10]	Switzerland	41,459,672
41	40	Banco di Roma[7,12]	Italy	40,988,226
42	42	Daiwa Bank[9,10]	Japan	39,599,271
43	46	Mitsubishi Trust & Banking[9,10]	Japan	39,523,218
44	39	Banca Commerciale Italiana	Italy	38,282,405
45	49	Sumitomo Trust & Banking[9,10]	Japan	36,896,112
46	●	Standard Chartered Bank	Britain	36,830,974
47	●	Bank of Nova Scotia[8,14]	Canada	36,736,973
48	41	Credit Suisse[10]	Switzerland	35,510,499
49	●	Mitsui Trust & Banking[9,10]	Japan	35,426,153
50	44	Société Générale de Banque	Belgium	35,205,728
		TOTALS		2,816,662,372

●Not on last year's list.

[1] Asset figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end, which is December 31, 1980, unless otherwise noted. Figures for subsidiaries are included if they are more than 50 percent owned, unless otherwise noted. Daiwa Bank, Mitsubishi Trust & Banking, Sumitomo Trust & Banking, Mitsui Trust & Banking include holdings of major trusts in their assets.

[2] Deposit figures have been converted into U.S. dollars using the market rate as of each bank's fiscal year-end. Figures for all German banks include their own bonds; so do the figures for Norinchukin Bank, Industrial Bank of Japan, Bank of Tokyo, and Long-Term Credit Bank of Japan. Banco do Brasil includes funds for refinancing. Figures for Swiss banks include medium-term notes.

INCREASE (DECREASE) FROM PRIOR YEAR		DEPOSITS[2]						
IN U.S DOLLARS %	IN LOCAL CURRENCIES %	($000)	RANK	LOANS[3] ($000)	NET INCOME[4] ($000)	STOCK-HOLDERS' EQUITY[5] ($000)	OFFICES[6]	EMPLOYEES
8.62	22.95	105,936,955	1	76,422,834	203,535	1,420,195	2,424	57,054
0.80	14.10	85,615,316	4	89,471,505	368,142	6,140,488	10,025	65,000[11]
7.69	21.89	90,664,231	2	83,053,972	134,259	1,596,106	2,283	45,892
6.12	20.12	88,249,326	3	67,991,505	188,510	1,403,569	2,535	44,373
31.70	22.30	81,808,916	5	65,014,246	809,979	4,758,888	5,000	120,000
20.82	13.43	62,523,521	8	50,843,723	113,467	1,733,045	334	24,233
(3.89)	9.90	81,205,993	6	71,666,127	242,830	2,599,466	1,361	44,128
28.60	19.42	76,017,980	7	57,988,197	720,911	4,336,035	3,818	73,668[11]
24.26	16.66	53,901,110	14	40,761,313	116,560	1,730,949	233	17,159
18.56	11.30	55,741,323	10	41,684,395	104,383	1,789,720	244	18,826
18.66	11.40	54,286,198	13	39,948,007	99,825	1,780,894	265	18,390
17.17	10.01	51,711,809	15	40,102,434	88,988	1,512,531	263	18,520
(10.93)	1.84	58,510,727	9	50,535,231	107,909	1,688,625	1,154	31,402
35.07	25.43	54,721,478	11	40,707,604	392,780	3,221,805	3,626	77,900[11]
17.52	10.33	48,745,419	16	34,103,961	113,698	1,360,072	25	5,014
(3.52)	10.31	54,511,876	12	47,289,893	32,320	1,292,898	13	7,690
7.33	21.49	36,669,681	32	44,704,571	207,395	1,498,159	1,664	36,280
9.86	31.01	33,148,102	41	21,567,153	96,764	897,033	224	14,230
22.44	21.48	46,202,701	18	31,965,461	164,364	1,434,417	1,592	36,928
23.06	15.53	37,432,325	30	29,499,059	57,312	990,784	179	12,784
8.27	22.56	27,326,973	49	43,467,633	173,077	1,790,426	1,016	25,823
6.58	64.14	28,476,133	48	47,321,542	1,733,221	3,579,656	1,258	94,267
18.53	11.28	37,021,768	31	28,214,162	63,214	1,108,902	242	15,490
(12.78)	(0.27)	48,206,664	17	43,791,815	17,851	1,153,049	880	27,505
10.88	25.34	44,989,765	19	29,665,882	155,531	1,127,802	919	27,837
6.87	22.70	42,768,024	23	25,332,606	44,350	1,619,249	364	21,200
16.38	9.26	39,997,092	27	29,289,489	101,154	1,172,264	22	3,307
22.53	13.79	43,283,902	22	41,906,644	467,895	3,332,655	2,847	63,339[11]
86.74	93.91	42,046,106	25	22,242,247	-287,462	2,008,944	801	36,609
(9.97)	7.36	42,218,083	24	23,629,711	50,599	300,214	38	3,056
21.45	20.51	41,647,366	26	28,784,440	121,781	945,440	1,801	36,713
(3.45)	10.40	43,723,869	20	41,166,394	73,973	913,938	479	12,330
16.90	9.74	34,829,453	38	27,072,866	57,977	974,430	335	15,515
0.02	13.06	43,455,725	21	33,772,468	188,004	1,920,075	3,087	26,894
(0.85)	12.08	38,113,090	29	26,529,242	139,151	1,210,212	873	23,971
2.69	15.08	36,459,323	33	35,046,175	199,480	2,636,466	234	15,606
0.82	15.28	39,849,705	28	36,673,242	47,357	900,065	527	12,167
(2.77)	11.17	35,446,685	37	32,449,410	63,769	998,725	4	3,956
28.93	27.92	35,561,098	36	25,993,553	157,029	1,067,952	1,296	26,904
(4.41)	7.12	35,632,167	35	32,502,583	171,135	2,430,722	205	13,264
14.88	31.90	26,297,339	50	20,025,513	52,288	461,595	418	15,548
16.35	9.23	31,208,104	46	24,063,464	45,287	673,290	168	11,563
22.81	15.30	35,789,491	34	21,574,442	43,685	703,710	51	6,156
6.88	22.71	33,372,723	39	25,262,973	53,659	1,144,701	459	20,597
21.49	14.06	33,208,976	40	21,682,417	44,633	699,168	49	6,130
27.61	18.50	32,308,597	43	29,136,005	372,316	1,597,524	1,571	51,955[11]
24.80	23.83	32,845,750	42	20,553,186	112,441	934,398	1,111	23,332
2.54	14.92	30,219,633	47	26,939,011	167,792	2,355,065	163	11,589
31.55	15.45	31,417,867	45	20,458,973	38,357	588,613	49	5,992
7.13	21.17	31,640,722	44	22,557,477	68,808	861,946	1,169	15,916
		2,356,967,180		**1,912,426,756**	**9,677,207**	**84,396,875**		**1,444,002**

---

[3] Loan figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end. Figures include loans to banks and at call or available on short notice.

[4] Net income figures have been converted into U.S. dollars using the average rate in the official exchange market during the bank's fiscal year. Net income is after taxes and includes minority interest.

[5] Stockholders' equity figures have been converted into U.S. dollars using the market rate prevailing at each bank's fiscal year-end. Equity is the sum of capital stock, surplus, and retained earnings. Figures for all French banks are before appropriation of profits.

[6] Includes head office, branches, and agencies.

[7] Government owned.

[8] Excludes certain subsidiaries that are more than 50 percent owned.

[9] Figures are for fiscal year ending September 30, 1980.

[10] Parent company only.

[11] Average for the year.

[12] Includes certain subsidiaries owned 50 percent or less.

[13] Figures are for fiscal year ending March 31, 1980.

[14] Figures are for fiscal year ending October 31, 1980.

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ASEA	155
Abitibi-Price	384
Adam Opel	81
Aérospatiale	147
Ahlström (A)	469
Aisin Seiki	471
Ajinomoto	281
Akzo Group	63
Albright & Wilson	448
Alcan Aluminium	77
Alfa-Laval	302
Alfa Romeo	202
Allied Breweries	113
Altos Hornos de Mexico	487
Amatil	428
Anomina Petroli Italiana	372
Asahi Chemical Industry	148
Asahi Glass	200
Associated Engineering	432
Atlas Copco	316
Australian Consolidated Industries	430
Avions Marcel Dassault-Bréguet Aviation	188
Axel Springer	392
BASF	17
BAT Industries	29
BICC	153
BL	59
BMW (Bayerische Motoren Werke)	118
BOC International	171
BSN-Gervais Danone	102
BTR	382
Babcock International	230
Barlow Rand	114
Bass	233
Bayer	16
Beecham Group	208
Béghin-Say	283
Bekaert Group	449
Bertelsmann	178
Blue Circle Industries	313
Boehringer Ingelheim	386
Bofors	463
Boliden	351
Borthwick (Thomas) & Sons	344
Bosch (Robert)	61
Bosch-Siemens Hausgeräte	342
Bowater	110
Bridgestone Tire	151
British Aerospace	140
British Petroleum	2
British Shipbuilders	263
British Steel	57
British Sugar	434
Broken Hill Proprietary	107
Brooke Bond Liebig	307
Brown Boveri	64
Burmah Oil	162
Butano	414
CEPSA (Cia. Española de Petróleos)	128
CODELCO-CHILE (Corporación Nacional del Cobra)	204
CSR	190
Cadbury Schweppes	184
Canada Development Corp.	231
Canada Packers	199
Canadian General Electric	362
Canadian Pacific	40
Canon	251
Carnaud	408
Cehave	475
Charbonnages de France	85
Chemie Linz	484
Chemische Werke Hüls	177
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The figures in this issue of FORTUNE's Directory of Industrial Corporations Outside the U.S. were prepared by reporters Edward C. Baig and Sue Zelony. The figures on the Fifty Largest Commercial-Banking Companies Outside the U.S. were prepared by reporter Lynn Fleary.

The Top 50 U.S. Exporters
American Can's Big Shakeout
What's Ahead for House Prices

[illegible]

$2.50 August 24, 1981

FORTUNE

ARE THE OIL STOCKS OVERSOLD?

MAY82 000 ES5200096Y 52 00 14
CONGRSSNL INFO SVC MD34
4520 EAST-WEST HWY
STE 800 SRI ACQ
WASHINGTON DC 20014
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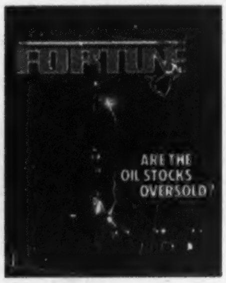
FORTUNE



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16—Courtesy Penn Central, courtesy Colt Industry. 21—Nicholas Solovioff. 41,42—Chartmakers Inc. 47,48—Michael McGinn. 52—Daniel Kramer, George Palmisano, Daniel Kramer. 53—Régis Bossu/Sygma. 57—William Reduto. 60—Dennis Brack–Black Star. 61—Walter Bennett, Neil Leifer, Dirck Halstead 62—Diana H. Walker, Anderson–Black Star, David Hume Kennerly. 63—Doug Bruce–Camera Five, Arthur Grace. 88—Inset courtesy Local 15, UAW. 113,116—Chart: Patricia Byrne, photography: Al Freni. 119—Graham Finlayson.

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August 24, 1981

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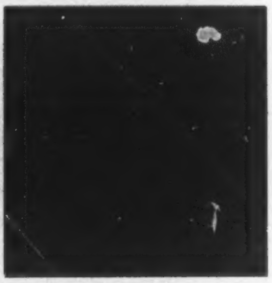

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INVESTMENTS

Are the Oil

Steve Kvongard

FORTUNE
August 24, 1981

Stocks Oversold?

by ALEXANDER STUART

From their peak last November, oil-company stocks have dropped with the glide slope of a stone. "It's one of the most massive and startling reversals of market leadership in modern times," one security analyst observes. Adds William F. Kieschnick, Atlantic Richfield's president and chief operating officer: "Energy stocks were 'in' last year and could do little wrong. Now they can do little right—unless a company is about to be acquired."

The share prices of the large integrated oil firms have declined 30% or more in some cases, though the recent clutch of merger bids—both rumored and real—has lifted the stocks of companies like Conoco, Marathon, and Cities Service since late June. Analysts can point to a raft of reasons to stay bearish about the group—a worldwide oil glut, slumping demand, falling crude prices. So the chief executive of a big integrated oil company may be forgiven for sounding a tad defensive when asked to explain Wall Street's disenchantment. "What sort of obituary notice are you going to write?" John E. Swearingen, chairman of Standard Oil Co. (Indiana), asked a recent visitor.

Big oil is hardly dying, however; it has merely lost its gravity-defying Superman qualities and rejoined the world of ordinary mortals. Earnings of U.S.-based integrated companies, propelled by a 150% jump in world oil prices, more than doubled over the two astounding years of 1979 and 1980. (Integrated companies' operations take in the full spectrum from finding and lifting to marketing.) The industry may have to settle for flat 1981 earnings or, at best, no more than a 5% rise.

Exploration Costs

They're soaring. Phillips Petroleum will spend about $10 million to drill a wildcat well in southeastern Arizona, where the mud-splattered roughneck at left is handling equipment used to hoist and disassemble drill pipe. It will be a year before the well reaches the targeted depth of 20,000 feet—and before Phillips learns whether its gamble has paid off.

With all that, big oil still deserves more envy than pity. The Value Line investment service projects the industry's return on equity for 1981 at 18.5%, down from a heady 23% in 1979 but still comfortably above the 14.4% achieved last year by the FORTUNE 500. Starting in 1982, moreover, earnings may begin to grow at a more respectable rate, though hardly at the otherworldly tempo of yesteryear. "I have a lot of trouble getting depressed about the oils," says Thomas A. Petrie, a veteran analyst with First Boston Corp.

> They do look cheap, but a rebound may hinge on changes in the cost of finding oil and in demand, and on the news from Saudi Arabia and Washington.

The oil stocks' fall was probably inevitable. They were overdue for a correction following what Barry C. Good, Morgan Stanley's top oil analyst, calls "the long bull march" that ended last fall. In 1980 energy stocks, including those of the oil-service firms, soared about 65%, far outpacing the 12% gain in the rest of Standard & Poor's 400-stock index. At times the bulls behaved like beasts in heat, pawing at the shares of the majors and independent producers with indiscriminate passion. "Investors saw one group with no problems and overbid it," says Edward J. Haase, a vice president of Chase Investors Management Corp., which runs a $7-billion investment portfolio.

Now the industry is perceived as awash in problems, including two quarters of profits that have been anything but obscene. In the first three months of 1981 the aggregate net income of 17 U.S.-based oil companies fell about 15% below last year's record level. The downward trend continued through the whole first half of 1981 for most majors, and some of the biggest of the big oils posted the sharpest declines: Gulf, off 19%; Indiana Standard, off 13%; Atlantic Richfield, off 16%. Amerada Hess, which earned $540 million in 1980 on sales of $7.9 billion, reported a $54-million loss in the second quarter—the first quarterly loss suffered by a major in years.

As these figures suggest, the decontrol of U.S. crude prices has been no bonanza. Shortly after President Reagan lifted controls in late January, the average price of U.S. crude jumped from $25.80 a barrel to about $36. This brightened the picture in the upstream end of the business—exploration and production—despite the heavy bite taken by the windfall-profits tax. Indiana Standard's net income from upstream operations, for example, jumped 67% in the first half.

But these gains were swamped by sharp profit declines in the industry's downstream segment—refining and marketing. When the effects of decontrol hit the pumps, consumers struck back. By the end of the first quarter, gasoline consumption was running 10% below the year-earlier level. Demand also slumped for other petroleum products, such as residual fuel oils. The upshot was that refineries burbled along at 70% of capacity or less in some weeks, way below profitable levels. The industry has responded to these dismal operating rates by mothballing roughly 600,000 to 700,000 barrels a day of refining capacity in the U.S. alone.

The cuts came too late to prevent red ink at Hess, which has to purchase about 80% of its crude supply, or Gulf, which is painfully dependent on costly feedstock from Nigeria; at $40 a barrel, it's the most expensive crude that OPEC has to offer. Gulf lost close to $200 million before taxes on domestic refining and marketing operations alone in the first quarter. "The

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Consumer Demand

Long gasoline lines are just a memory in today's buyer's market, as these New Jersey green flags, solicitous service, discount coupons, and price competition make clear. The jump in pump prices has forced conservation, but the trend could change when the economy picks up—or if consumers get used to the new prices.

whole downstream business was under water," says Robert W. Baldwin, president of Gulf's refining and marketing. "We were just a little deeper under water."

A number of savvy Wall Streeters, citing these and other grim forecasts, are skeptical that oil-company stock prices will rebound soon from this summer's lows. William Randol, an analyst with Salomon Brothers, expects the group as a whole to be "dull performers," perhaps through 1982. Morgan Stanley's Barry Good believes that prices may not even have bottomed out. He's also unmoved by a startling statistic: the integrated oil companies are selling at less than 50% of "breakup" value per share, the theoretical price a stockholder would receive if all of a company's assets were liquidated. In today's market, he says, good companies in a host of industries sell far below their liquidation value.

A bull at Paine Webber

While Good and others may be right in their short-term pessimism about oil stocks, others in Wall Street argue persuasively that the investing public has overreacted to the industry's fall from grace. "I haven't been as bullish on the oils since 1974 and 1975," says Bruce Lazier of Paine Webber Mitchell Hutchins. Between 1982 and 1985, Lazier predicts, the integrated companies will increase their earnings per share by at least 15% a year—more than a lot of other sectors of the economy can hope for.

Oilmen see bargains aplenty, both in their own stocks and in those of others. Texaco, Indiana Standard, and Gulf have announced plans to repurchase some of their outstanding shares—up to 5% in Gulf's case. At a recent quote of $39.75, the stock of a much smaller outfit, Pennzoil, looked "too tempting" to Chairman J. Hugh Liedtke. So Pennzoil (1980 sales: $2.5 billion) will buy back up to 2% of its equity. Says Liedtke: "This is the greatest buying opportunity for oil, gas, and mineral stocks that I've seen in years, or may ever see."

Vivid proof that Liedtke's confreres agree with him lies in the feverish bids and counterbids for Conoco by Seagram, Du Pont, and Mobil. Others have mergers in mind, too—either making them or fending them off. They're spurred on by an Administration that doesn't regard bigness as badness. Exactly how far Washington will go in allowing mergers, particularly of the "horizontal" type between companies in the same business, may become clearer in the next few days or weeks. If the Reaganites challenge Mobil's takeover bid for Conoco, for example, they will be drawing the line at mergers involving two major oil companies. If they don't, the money spent this year buying oil and gas reserves through takeovers could run in the tens of billions of dollars—a mind-boggling prospect.

The table on pages 54 and 55 shows why takeovers are so appealing. In today's bear market, it's cheaper to buy reserves on the floor of the New York Stock Exchange than to hunt for them in more daunting terrain. But takeover opportunities haven't diminished the industry's appetite for punching holes in the ground. Indeed, the hydrocarbon hunt thunders onward at breakneck speed—another sign of oilmen's optimism in the face of a glut. The $45 billion that oil companies plan to spend in 1981 on domestic exploration and production is more than double the 1978 level.

In June, over 4,000 drilling rigs were at work in the U.S., a record. Baker International, a leading oil-service company, projects that as many as 5,800 rigs could be "making hole" by 1984. "The growth for our products and services is going ahead as if the glut did not exist," says E. H. "Hubie" Clark Jr., Baker's chairman and president.

What's going on here? Have industry executives contracted a terminal case of oil-patch myopia? Not to hear them tell it. Though takeovers are the cheapest path to reserves right now, they say, they are mere reshufflings of what has already been found. Despite an improved showing, the industry as a whole still isn't finding as much oil and gas in the U.S. as it is pumping. Hence each company's quest for new reserves to supplement whatever can be acquired.

In laying out those growing sums for exploration, oilmen are convinced they

Saudi Arabia

How long the oil glut persists largely depends on when Saudi Arabia—ruled by King Khalid, the man in the middle at right—decides to cut back the flood of oil his country is producing in its effort to gain control of OPEC prices.

see an attractive payoff five years down the road, which is the minimum time it takes to bring a new field into full production. Just how attractive will heavily depend on three imponderables that hold the key to profits in the new, down-to-earth era the industry has entered—the cost of finding new reserves, consumer demand, and Saudi Arabia's ability to influence world oil prices.

"We're in a classic squeeze"

Finding costs are difficult to pin down; they include everything from payments to drilling contractors to the enormous "lease bonuses" the majors regularly plunk down for the right to drill in state and federal offshore waters. Still, most oilmen agree that they have been rising at a blistering rate—at least 20% a year. B. P. "Pete" Huddleston, a thoughtful independent petroleum engineer based in Houston, figures that finding costs now stand in the neighborhood of $15 to $17 per barrel of oil. "Every activity associated with the oil business is overpriced—from drilling mud to petroleum-engineering consultants," he says.

Oil-field inflation shows no signs of subsiding over the near term, even though U.S. crude prices have backed off from their post-decontrol highs by around $3 per barrel. "We're in a classic squeeze," says Rawleigh Warner Jr., chairman of Mobil. James L. Ketelsen, chairman of Tenneco, is even more worried. His company is one of the few whose new discoveries and other reserve additions have replaced production in the past few years. But by the end of 1982, Ketelsen fears, Tenneco may find exploration costs too high to keep up this enviable record.

The picture is not as gloomy as it looks, however, because the supply of oil-field equipment—whose producers have embarked on huge expansion programs—promises to catch up with demand. Baker International's Clark predicts that oil-field inflation will fall to a relatively manageable 10% in a few years.

At the moment, of course, a surplus of crude is sloshing around the world oil markets. Overall, the OPEC countries are pumping about 23 million barrels a day, not much more than 70% of their total capacity.

But most oilmen are betting that they'll have no trouble profitably selling any oil and gas they find. The glut is partly illusory. The oil companies are working off bloated inventories to reduce sharply higher carrying costs, and thus are temporarily reducing perceived demand for crude. Nevertheless, some Wall Street bears are spinning a scenario that includes the surplus as a virtually permanent fixture on the scene. "The glut is here to stay," opines Henry L. Wojtyla, an economist with the brokerage firm of Rosenkrantz Ehrenkrantz Lyon & Ross. Wojtyla believes that as non-OPEC production increases in Mexico, the North Sea, and elsewhere, the demand for OPEC crude could tail off to 16 million barrels a day as early as 1983.

John H. Lichtblau, executive director of the Petroleum Industry Research Foundation, an industry-supported group, meanwhile forecasts that the demand for petroleum products in the U.S., including gasoline, will contract some 10% between 1980 and 1990. From here it is but a short hop to the conclusion that the price of oil will remain flat, in real terms, and could conceivably head straight south for several years.

An audience of oilmen was recently startled by figures from the Houston consulting firm of Groppe Long & Littell; they predicted crude prices of $15 per barrel by 1985 (in constant 1980 dollars). A new study by two Stanford University professors, Henry S. Rowen and John P. Weyant, also sees a possible collapse in oil prices, to as low as $20 a barrel within the next two years (in 1981 dollars). Their thesis holds that consumers will cling to their new conservation ethic—even if oil supplies continue plentiful. The professors calculate that every million barrels a day of excess production in 1982 could result in a $6 to $8 decline in the real world price of crude.

It is not preordained, though, that demand will go on falling. A few analysts see U.S. consumption of petroleum products hitting bottom fairly soon and starting to creep up thereafter by 1% to 2% a year. Conoco has forecast that worldwide demand will increase by 2.1% a year through 1990. But even if demand slowly declines in the industrialized world, as most now expect, prices needn't follow it downward. This is because of Saudi Arabia's great muscle when it comes to influencing prices.

The current world oil surplus, on the order of two million to three million barrels a day, is largely a creation of the Saudis. In an effort to wrest control of prices from OPEC hawks like Kuwait and Libya and to moderate future price increases,

continued

The Allures of 16 Big Oil

Company	Oil and gas reserves Barrels per share* Worldwide	U.S.
Exxon	16.6	6.5
Mobil	12.1	4.5
Texaco	15.4	9.2
Standard (Calif.)	8.6	6.4
Gulf	15.1	8.6
Standard (Ind.)	16.9	10.5
Atlantic Richfield	19.9	19.3
Shell USA	11.7	11.2
Conoco	15.5	9.8
Phillips	14.1	7.0
Standard (Ohio)	19.4	19.4
Getty	29.1	22.1
Union	11.1	8.6
Marathon	30.0	16.9
Amerada Hess	14.2	5.2
Cities Service	10.2	9.5

*Gas converted to oil equivalent

Saudi Arabia has been producing more than ten million barrels a day. It now accounts for 40% of the cartel's production, compared with only 21% in 1972. Sheikh Ahmed Zaki Yamani, the Saudi oil minister, believes that OPEC prices shot up too high after the outbreak of the Iran-Iraq war curtailed exports from those two countries. With its huge reserves, which won't run dry for a half-century, Saudi Arabia has a special interest in keeping prices within reason. Last January, Yamani warned in a speech that if the prices aren't moderated, the industrialized world could be driven into synfuels and other oil substitutes and that demand for Saudi crude could drop to a mere three million barrels a day by the end of the decade.

But just as they can hype production in an effort to pull down world prices, the Saudis can also slash production to prop them up. Walter J. Levy, a noted consultant on petromatters, believes that once the Saudis succeed in unifying OPEC prices at a level closer to their own desiring, they will turn down the spigots and the glut will disappear in short order. Says Levy: "What the sheikhs give, the sheikhs can take away."

Washington

If the Reagan Administration continues to look favorably on mergers, oil stocks could start to sizzle for this reason alone. But Assistant Attorney General William Baxter (below), the antitrust boss, hinted recently that he may stifle big oil's urge to merge. "If they think we're generally soft on mergers," he was quoted as saying, "they're in for a big surprise."

Susan McElhinney

How low can the Saudis go?

Just how large a production cut the Saudis might make is an open question, answerable only after Iraq and Iran lay down their arms and repair to the pumping stations. Yet even if those two nations could manage to boost their combined output by two million to three million barrels a day, Saudi Arabia could make offsetting cuts without unduly crimping its audacious development plans. Hisham Nazer, the Saudi planning minister, has said that his country could cut oil production as much as 50%. Some Western observers doubt that the Saudis would ever go that far, and assert that six million barrels a day is the minimum they could live with.

Nobody knows just what price level the Saudis are seeking, and it's always possible that the desert kingdom could fall apart politically at some point or curtail its production in retaliation for U.S. policy toward Israel. But assuming the Saudis do as they say, a reasonable hypothesis is that OPEC prices will average about $34 a barrel early in 1982, compared with a peak price of $41 in 1980. Thereafter, they would probably move in lockstep with the industrial world's inflation rate or a bit faster—at least until another Mideast crisis caused a new supply disruption and a further price spiral.

If the Saudis can bring all this off, they will build a floor not only under world oil prices but also under oil prices within the U.S.—and hence under the profits from domestic production. Meanwhile, U.S. producers have a few cards of their own to play. Big economies remain to be achieved in the downstream end of the business, particularly in refineries. And government policies can help, in ways that promise to improve the bottom line.

The windfall-profits tax, though onerous, will become less so. The levy established three broad tiers of domestic oil—defined according to when and where the oil was discovered, the amount of production per well, and so forth—and taxes the difference between wellhead prices and several so-called base prices at rates that range from 30% to 70%.

The top bracket essentially covers oil discovered more than two years ago, about three-fourths of current U.S. production. Crude found since then, something like 10% of the total, is taxed at a mere 30%. As the mix between old and new oil shifts over time, the typical producer will earn more from production, even if the price at the wellhead stays the same. John Ryan, an analyst with Houston-based Rotan Mosle, predicts the increase will run about 6% to 7% a year. The Reagan Administration is seeking cuts in

Companies

U.S. gas reserves Barrels per share* (Lower 48 states only)	Rate at which U.S. oil and gas discoveries are replacing production	Stock-price range Last 12 months	Recent price	Price-earnings multiple	Stock-market value per barrel of U.S. oil and gas reserves*
1.7	**22%**	**32⅜-44⅜**	**$34.75**	**5**	**$5.35**
2.4	34%	27¼-44¼	$30.25	5	$6.72
4.7	**25%**	**33⅛-54⅜**	**$36.25**	**4**	**$3.94**
2.4	42%	35⅛-51¾	$40.00	6	$6.25
3.9	**42%**	**30⅝-52¾**	**$36.75**	**6**	**$4.27**
4.8	56%	49-99½	$58.00	10	$5.52
3.1	**46%**	**40¾-74⅜**	**$48.50**	**8**	**$2.51**
3.9	61%	34-65½	$45.25	9	$4.04
4.1	**42%**	**47½-89⅛**	**$86.75**	**11**	**$8.85**
3.5	18%	34¼-62⅞	$44.25	6	$6.32
0.2	**9%**	**42⅜-91½**	**$48.75**	**6**	**$2.51**
5.3	22%	59-108¼	$72.25	7	$3.27
5.5	**74%**	**27⅝-56½**	**$38.50**	**10**	**$4.48**
5.6	30%	44¾-82½	$65.25	13	$3.86
2.2	**15%**	**26⅝-54¾**	**$32.25**	**5**	**$6.20**
5.9	56%	31¼-62¼	$56.75	13	$5.97

This table shows striking disparities among some widely followed integrated oil companies and in the stock market's assessment of them. A possible reason Atlantic Richfield's U.S. reserves are valued at only $2.51 a barrel (the figure in the last column) is that two-thirds of its gas is in Alaska. It can't be converted to cash until a long pipeline is built. The $8.85 figure for Conoco, of course, is fueled by all the recent merger action. The middle column provides stark evidence that big oil is coming up dry too often; it's not finding enough oil and gas in the U.S. to replace domestic production. The percentage for each company is an average for the past three years and includes only new discoveries and extensions of existing fields. The figures do not include revisions of previous reserve estimates, nor do they take account of additions to reserves through enhanced recovery techniques. The column showing gas reserves in the lower 48 states is important because of the steadily increasing prices allowed by deregulation. The worldwide reserves per share at the extreme left of the table do not include the first four companies' share of Aramco crude-oil reserves, which Saudi Arabia will not disclose.

the windfall levy that would improve those projections somewhat.

And then there is the earnings kicker in the offing from natural gas. Under the timetable set forth in the Natural Gas Policy Act of 1978, wellhead prices will jump 20% annually through 1985. Natural gas now accounts for about one-third of wellhead revenues, and working that number into his projections, Ryan concludes that industry revenues from oil and gas production will climb at about 11% a year—again assuming flat crude prices. Clearly, companies with large gas reserves will benefit the most, particularly those whose reserves are mainly connected to existing pipelines in the lower 48 states.

If crude prices trend downward in the U.S., as they have since last spring, the integrated oil companies could reap a wholly unexpected windfall of another sort, again courtesy of the federal tax laws. Downstream operations are taxed at the corporate rate of 46%, while the top marginal tax rate on crude production verges on 85%, including windfall and severance taxes. Because of this fat spread, according to Bernard J. Picchi of Salomon Brothers, a profit squeeze upstream could be more than offset by gains downstream. A $1-per-barrel drop in U.S. oil prices, Picchi says, could conceivably swell the net income of the 16 integrated oil companies he surveyed by as much as $1.3 billion.

While the aggregate picture of the oils that emerges from all this is more encouraging than is generally recognized, there are enormous disparities among the companies. Says Bill Kieschnick, Atlantic Richfield's president: "It's like asking if you can walk out and drown in a river with an average depth of three feet."

The disparities could affect the future more than the present, as is shown by a close look at four companies—Arco, Texaco, Mobil, and Indiana Standard. Analysts are generally predicting flat or slightly rising earnings for the four in 1981, but after that their fates could vary considerably. Arco's aggressive oil hunt, for example, has put it in a superior position in terms of self-sufficiency. It produces most of its own crude, practically all of which comes from the U.S. Atlantic Richfield has a large share of the production at Alaska's Prudhoe Bay, and early in 1982 will bring onstream the Kuparuk River field to the west. By 1986, gross production there could reach 200,000 barrels a day, of which Arco's share will be roughly 60%. Largely because of Kuparuk and Prudhoe Bay, Kieschnick can make the claim, rare among the majors, that "from what we already have in the 'bank,' we see stable, non-declining oil production for over a decade." Adds William Randol of Salomon Brothers, "It's one of the few companies you can point to with conviction and say it's going to have volume growth."

"A nice little nest egg"

Those volumes should be highly profitable, too, especially the Kuparuk River production. The way Congress wrote the windfall-profits tax, production from this field will escape the levy entirely. Natural gas is more of a question mark for Arco; two-thirds of its gas reserves are locked in Alaska, awaiting financing and construction of a $30-billion pipeline. Still, Kieschnick is happy to have the stuff: "It's a nice little nest egg."

Texaco, by contrast, has a dismal record in finding hydrocarbons. Its U.S. crude reserves fell 7% in 1980, and its domestic reserves of natural gas have declined by 42% over the last three years. Unlike Arco,

continued

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Mobil can't replace production through discoveries alone, says Rawleigh Warner.

though, Texaco has benefited by processing Saudi crude, whose price has generally been $2 to $4 a barrel below the OPEC average. It holds a 28% interest in Aramco, the Arabian American Oil Co. (The other partners: Exxon, Standard Oil of California, and Mobil.) Estimates vary, but the so-called Aramco advantage may well have pumped up Texaco's after-tax downstream earnings by over $350 million in 1980. Unfortunately for Texaco and the other Aramco partners, this advantage could disappear this year if the Saudis can succeed in unifying OPEC's chaotic price structure.

Under prodding by its new chief executive, John McKinley, the company has mounted a serious effort to stem the decline in its U.S. reserves. It has upped its domestic exploration and production budget this year, to about $1.3 billion. But the best Texaco can hope for, says Robert R. McCall, senior vice president for exploration and production in the U.S., is to "diminish the rate of its reserve depletion." McCall's comment explains why the company flirted briefly with Conoco and is widely expected to take a run at another outfit soon.

Mobil has always had reasons to prowl. Traditionally crude-short domestically, it also has a much smaller share in Saudi Arabia's production than the other Aramco partners. In 1979 Mobil won the bidding for General Crude Oil (price: $792 million) and the following year bagged TransOcean Oil ($715 million). Sun Oil edged Mobil for Texas Pacific, the subsidiary sold in 1980 by Seagram, and lately Mobil has been battling with Du Pont and Seagram—the oil seller turned buyer—for control of Conoco. "We can't consistently replace production through discoveries alone at our size," Chairman Rawleigh Warner explains. "That's why you see these attempts."

Unlike Texaco, though, Mobil has had a remarkable hot streak in wildcatting, particularly outside the U.S. The Hibernia field off the coast of Newfoundland ultimately could yield reserves of more than two billion barrels of oil by some accounts, and Mobil's interest there is the largest of any operator's. Elsewhere in the world, the company has scored impressive strikes in the Republic of Cameroon and West Germany, among other places.

Mobil's exploration success abroad is equaled, if not exceeded, in the U.S. by Indiana Standard's record. No other major is as aggressive on the homefront. Standard controls 30 million acres, over twice Gulf's domestic lease acreage, and has regularly drilled more wells than any competitor. Indiana Standard's two most notable coups have been in the Western Overthrust Belt and along the Tuscaloosa Trend in Louisiana (see "How Amoco Finds All That Oil," FORTUNE, September 8, 1980). The company may book enough additional reserves this year to replace production. Moreover, John Swearingen swears that Standard can repeat this performance "on an indefinite basis."

Up until last fall, the market loved the Indiana Standard story: the company's stock price appreciated at an annual rate of 30% between 1975 and 1980. But Standard has since slumped further than almost any other integrated company. Part of the blame for the sell-off falls on losses in downstream operations.

The oils aren't finished

How then to explain the steep dive in Standard's share price—and the flight from big oil in general? It is hard to escape the conclusion that the market has become transfixed with a glut that may soon disappear and a temporary lull in quarterly earnings growth that may shortly end. Indeed, says First Boston's Tom Petrie, "the worst year-to-year comparisons are already behind us."

Despite the prevailing sentiment in the stock market, the game is far from over for the oils. The group as a whole may not gallop off the charts for the time being, at least until the next flare-up in the Middle East. But if an investor has a little patience, picks selectively, and can ignore the growling of the bears, that oil on the floor of the stock exchange may be worth mopping up. ■

Chris Collins

DIRECTORY

The 50 Leading Exporters

Exports are becoming ever more important to the U.S. economy—precisely as their expansion seems ever more difficult. Ten years ago only around 4% of GNP could be attributed to exports; they now account for twice that proportion. But U.S. export growth has been unable to keep pace with foreign competition. During the last decade the American share of the non-Communist world's exports has slumped from 15.4% to 12%, with little hope of improvement in the near future. So far, though, the leading U.S. exporters appear unscathed. The top 50 exporting companies are listed at the right, in a ranking based on the FORTUNE 500 directory of the largest U.S. industrial corporations.

Along with direct exporting to foreign customers, U.S. corporations have traditionally advanced into foreign markets through a worldwide network of subsidiary companies. These subsidiaries include both local manufacturers and outfits marketing products from the U.S. parent. In an effort to give a more representative picture of a company's achievements in foreign trade, this year's FORTUNE list (unlike last year's) takes into account sales through foreign subsidiaries as well as those made directly. One result is the inclusion of 15 industrial giants that export almost exclusively through foreign affiliates—notably General Motors, Ford, and International Business Machines, each of which annually exports well over $1 billion of goods. The 50 leading exporters amassed total sales of some $57 billion in 1980—more than one-quarter of all U.S. merchandise sold abroad.

The stubborn obstacles

While summary figures are clear enough, the statistical details can get slippery. Some companies price their sales to their subsidiaries at cost plus markup, others at market value. In addition, sales to subsidiaries are eliminated from a company's consolidated sales totals, so there is a margin for error in the calculations of exports as a percentage of total sales.

The U.S. needs to expand exports of goods and services to preserve jobs and encourage growth. In a worldwide atmosphere of growing protectionism, the Reagan Administration is trying to shape a trade policy to ease some disincentives facing exporters and to make U.S. exports more competitive in world markets. This effort entails modifying the antibribery law, reducing taxes for Americans stationed abroad, and relaxing the banking and antitrust laws to allow banks to invest in export-trading companies. Possibly several billion dollars could be added to the country's export revenues as a result. But many experts feel that breaking down those barriers is not enough to offset other obstacles facing the American exporter—above all, the rising strength of the dollar on world currency markets.

—CLAIRE MAKIN GREEN

THE 50 LEADING EXPORTERS

RANK '80	RANK '79	COMPANY	PRODUCTS	EXPORTS ($000)	FORTUNE 500 SALES ($000)	FORTUNE 500 RANK	EXPORTS AS PERCENT OF SALES %	EXPORTS AS PERCENT OF SALES RANK
1	1	**Boeing** (Seattle)	Aircraft	5,503,800	9,426,200	30	58.39	1
2	●	**General Motors** (Detroit)	Automotive vehicles and pa[illegible]comotives	5,287,100	57,728,500	3	9.16	38
3	2	**General Electric** (Fairfield, Conn.)	Generating equipment, aircraft engines	4,265,000	24,959,000	10	17.09	20
4	●	**Ford Motor** (Dearborn, Mich.)	Automotive vehicles and parts	3,453,000	37,085,500	6	9.31	37
5	3	**Caterpillar Tractor** (Peoria, Ill.)	Construction equipment, engines	3,094,000	8,597,800	33	35.99	3
6	5	**E.I. du Pont de Nemours** (Wilmington, Del.)	Chemicals, fibers, plastics	2,175,000	13,652,000	15	15.93	23
7	6	**United Technologies** (Hartford)	Aircraft engines, helicopters	2,142,593	12,323,994	21	17.39	18
8	4	**McDonnell Douglas** (St. Louis)	Aircraft	2,065,800	6,066,300	53	34.05	4
9	●	**International Business Machines** (Armonk, N.Y.)	Information-handling systems, equipment, and parts	1,615,000	26,213,000	8	6.16	44
10	8	**Lockheed** (Burbank, Calif.)	Aircraft and related support services	1,358,000	5,395,700	61	25.17	8
11	●	**Eastman Kodak** (Rochester, N.Y.)	Photographic equipment and supplies	1,357,029	9,734,303	29	13.94	27
12	12	**Union Carbide** (New York)	Chemicals, plastics	1,240,000	9,994,000	27	12.41	31
13	9	**Westinghouse Electric** (Pittsburgh)	Generating equipment, defense systems	1,192,000	8,514,300	34	14.00	26
14	7	**Weyerhaeuser** (Tacoma, Wash.)	Pulp, logs, lumber, wood products	1,140,000	4,535,814	83	25.13	9
15	10	**Raytheon** (Lexington, Mass.)	Electronic equipment	1,042,000	5,002,088	69	20.83	13
16	25	**Monsanto** (St. Louis)	Herbicides, textile fibers, specialty chemicals	1,026,400	6,573,600	48	15.61	24
17	●	**Dow Chemical** (Midland, Mich.)	Chemicals, plastics, magnesium metal	909,000	10,626,000	25	8.55	39
18	23	**International Harvester** (Chicago)	Construction and farm equipment, trucks	888,000	6,311,804	49	14.07	25
19	●	**Hewlett-Packard** (Palo Alto, Calif.)	Electronic equipment	831,000	3,099,000	120	26.82	6
20	13	**Archer-Daniels-Midland** (Decatur, Ill.)	Soybean meal and oil, wheat, corn	808,941	2,802,011	139	28.87	5
21	14	**Signal Companies** (La Jolla, Calif.)	Trucks, engines, chemicals	803,800	4,285,300	85	18.76	15
22	24	**Dresser Industries** (Dallas)	Oil-field and industrial equipment	703,700	4,016,300	93	17.52	16
23	●	**Ingersoll-Rand** (Woodcliff Lake, N.J.)	Drills, compressors, pumps, bearings, tools	702,600	2,970,960	129	23.65	10
24	16	**Philip Morris** (New York)	Tobacco products	702,400	7,328,300	45	9.58	35
25	20	**Deere** (Moline, Ill.)	Farm equipment	688,000	5,469,825	60	12.58	30
26	●	**Mobil** (New York)	Lubricating oils	683,000	59,510,000	2	1.15	48
27	18	**Kaiser Aluminum & Chemical** (Oakland, Calif.)	Aluminum	676,300	3,222,100	114	20.99	12
28	17	**Occidental Petroleum** (Los Angeles)	Agricultural chemical products, coal	651,000	12,476,125	20	5.22	46
29	19	**Textron** (Providence)	Helicopters, machine tools, metal products	636,000	3,637,500	102	17.48	17
30	11	**Northrop** (Los Angeles)	Aircraft and related support services	614,600	1,655,400	219	37.13	2
31	●	**Exxon** (New York)	Petroleum and chemicals	593,000	103,142,834	1	.57	50
32	●	**Aluminum Co. of America** (Pittsburgh)	Aluminum	588,900	5,147,600	63	11.44	34
33	33	**Celanese** (New York)	Fibers, chemicals	576,000	3,348,000	107	17.20	19
34	22	**FMC** (Chicago)	Industrial and farm equipment	558,517	3,482,183	103	16.04	22
35	15	**Rockwell International** (Pittsburgh)	Electronic, automotive, and industrial equipment	543,000	6,906,500	46	7.86	41
36	21	**R.J. Reynolds Industries** (Winston-Salem, N.C.)	Tobacco products	535,300	8,449,000	35	6.34	43
37	43	**International Minerals & Chemical** (Northbrook, Ill.)	Potash, phosphate, industrial minerals	463,700	1,789,600	201	25.91	7
38	●	**Digital Equipment** (Maynard, Mass.)	Computer systems and equipment	453,814	2,368,045	162	19.16	14
39	●	**Sperry** (New York)	Computer systems and equipment	453,213	4,785,425	77	9.47	36
40	28	**Williams Companies** (Tulsa)	Phosphate products, fertilizer	444,000	2,072,686	181	21.42	11
41	●	**NCR** (Dayton, Ohio)	Mainframe computers and terminal systems	426,621	3,322,370	108	12.84	29
42	26	**American Motors** (Southfield, Mich.)	Automotive vehicles and parts	421,579	2,552,587	155	16.52	21
43	31	**International Paper** (New York)	Pulp and paper products	411,000	5,042,900	67	8.15	40
44	●	**Phillips Petroleum** (Bartlesville, Okla.)	Petrochemicals, natural gas	374,000	13,376,563	16	2.80	47
45	47	**Emerson Electric** (St. Louis)	Electronic components	371,783	3,066,841	124	12.12	33
46	29	**Allied Chemical** (Morristown, N.J.)	Fibers, plastics, chemicals	369,000	5,519,000	59	6.69	42
47	●	**Control Data** (Minneapolis)	Computers and peripheral equipment	361,900	2,765,609	141	13.09	28
48	●	**Minnesota Mining & Manufacturing** (St. Paul)	Industrial, health-care, graphics, electronics products	361,000	6,079,540	52	5.94	45
49	●	**Standard Oil of California** (San Francisco)	Chemicals, fuel and gas oils	359,000	40,479,000	5	.89	49
50	●	**AMAX** (Greenwich, Conn.)	Molybdenum, nickel, and phosphate products	357,330	2,949,170	131	12.12	32
		TOTALS		57,277,720	599,858,168			

● Not on last year's list.

Heinrich Ulrich to be joint *Sprecher*. The arrangement, though harmonious, ended in 1970 when Klasen became president of the Bundesbank, West Germany's central bank. All three of these postwar *Sprecher* still contribute to the bank's tradition of continuity. Abs is honorary chairman and Ulrich is chairman of the supervisory board; Klasen, now retired from the Bundesbank, is a member of the board.

Predictions abounded in 1976 that the Christians-Guth brother act would be short-lived. The election had been a copout of sorts, because the two were considered equally well qualified and neither would stay on under the other. But both men recognized from the start that they had to stand together or the board would split into factions. Says Christians, "We decided never to go into the boardroom divided on any issue. If we were not initially in full agreement, we sat down and talked until we were."

A changing of the guard

The Eighties will see the third postwar changing of the guard at Deutsche Bank, with Guth reaching retirement age in 1984 and Christians three years later. The succession should cause few problems. The average age of the bank's present executive board is in the low 50s and three of the members are in their 40s. Aspirants to the post of *Sprecher* are already beavering away in hopes of establishing that edge which makes the elections, in the words of Franz Ulrich, "simply the legitimation of an existing situation."

The question will be—one spokesman or two? The success of the present team has lent renewed strength to arguments that continuing a managerial duo at the top has practical advantages—especially as the bank expands in the U.S. and elsewhere abroad. With bankerly charity, Christians notes: "When I see the load that chief executives of banks our size have to carry, I wonder how they can do it alone." Guth adds, "And none of them can be in two places at once." F

The U.S. Pushovers Push Back

A voracious pack of foreign banks has invaded the American market in recent years, offering blue-chip corporations a bonanza of credit and giving U.S. bankers a bad case of nerves. Bank of Tokyo has booked more commercial and industrial loans in this country than any other foreign institution—$2.28 billion as of the end of 1980. By contrast, Deutsche Bank, with a mere $228 million, is a distant also-ran so far. In all, the ten largest foreign lenders have over $17 billion of U.S. business loans tucked in their portfolios—more than the domestic commercial-loan business of Citibank, Chase Manhattan, or any other single American giant.

Some foreign banks have been on U.S. shores for decades, quietly serving clients from their home countries; the Hongkong & Shanghai Banking Corp. set up shop in San Francisco in 1875. In recent years, however, many foreign banks have turned to the U.S. market as a new source of growth. Of the commercial and industrial loans booked in the U.S., the share handled by foreign banks more than doubled from 6% at the end of 1972, when the Federal Reserve began compiling the figures, to 14.3% in June—and much more in money centers like New York.

These figures include loans made by the foreign banks' U.S. agencies and branches, but not by American banks controlled by foreigners—which would make the foreign share even larger. Hongkong & Shanghai owns 51% of Marine Midland, the 15th-largest U.S. commercial bank, and six European institutions own European American Bancorp (No. 27 in the U.S.). Midland Bank of Britain is taking over Crocker National (No. 13). If loans booked by all foreign-owned U.S. banks were included, the foreign share of the New York business-loan market would have reached 41% at the end of last year.

The most aggressive European and Japanese banks have dotted the countryside with representative offices and branches. Over the past decade, foreign banks have opened more than 200 offices in financial hubs such as New York and Houston. The account officers there are under pressure to get loans on the books, so the expansion has added angst to the already fiercely competitive market. Loan officers scour the back roads of corporate America, knocking on treasurers' doors to solicit any business they can scrounge.

Balance-sheet puffers

Wresting a corporation from its longstanding relationship with a domestic bank is easier said than done, however, so foreign bankers do battle with the ultimate weapon—bargain-basement loans. Japanese and French bankers, known to be among the most aggressive, make 30-day "money-market loans" priced as low as an eighth of a percentage point above their cost of funds (with no "compensating balance" required from the borrower). "They're just puffing up their balance sheets with those kinds of unprofitable loans," says one Canadian banker.

Even before spreads shrank as much as they have today, well-established, conservative foreign banks—the Canadians among them—introduced fixed-rate loans based on the London Interbank Offered Rate (LIBOR). Several years ago, LIBOR ran as high as the U.S. prime rate or higher. But lately, LIBOR has sunk as much as three percentage points below the prime. The low LIBOR

Research associate: Ford S. Worthy

The Top Ten Foreign Lenders

LOANS TO BUSINESS IN THE U.S.	(billion)
Bank of Tokyo	$2.277
Dai-Ichi Kangyo Bank	$2.019
Mitsui Bank	$1.866
Fuji Bank	$1.784
Bank of Montreal	$1.762
Canadian Imperial Bank of Commerce	$1.721
Royal Bank of Canada	$1.496
Swiss Bank Corp.	$1.456
Sumitomo Bank	$1.438
Mitsubishi Bank	$1.375

The Japanese handily lead this ranking of foreign banks lending to business in the U.S. The figures include all business loans booked in the U.S. by foreign-bank branches and agencies as of December 31, 1980. The Japanese lead is exaggerated by some peculiarities of international banking. While the Japanese record virtually all loans to borrowers in the U.S. on the books of their American operations, other foreign banks often book loans in Caribbean tax havens, which means those loans don't show up in U.S. figures. The data were supplied by the *American Banker*.

reflects the large quantity of funds flowing into the Eurodollar market and the economies of scale of handling huge deposits. LIBOR-based loans—plus the ability of corporations to raise money cheaply in the commercial-paper market—have pressured U.S. banks to trim their own lending rates below prime.

Why have the foreigners been so anxious to compete for low-profit business? Many say they are simply following their local customers abroad, just as U.S. banks followed American multinationals when they expanded overseas 20 years ago. Having made the decision to enter the U.S., the banks have been willing to forgo short-term earnings to stake out a piece of the world's largest, most dynamic commercial-loan market. A lot of foreign bankers view the U.S. as a wide-open frontier for banks facing slow growth at home. The Germans, British, and Japanese see their native markets as "overbanked," while local credit controls have also encouraged the French and British to look for business elsewhere. Bankers from developing nations like Brazil want to lessen their risks by diversifying beyond local borrowers.

Irresistible advantages

Until recently, foreign banks had competitive advantages that made the move into the U.S. irresistible. Exempt from many restrictions on U.S. banks, they could branch across state lines and buy up domestic banks that their American competitors were forbidden to touch. Foreign-bank branches were not required to set aside a portion of their deposits in non-interest-bearing reserves as U.S. banks are. And their home-country regulators allowed them to support more loans on a smaller capital base than their U.S. counterparts. These advantages lowered the foreign banks' costs, giving them a competitive edge.

Before long, American bankers pressured Congress into equalizing the rules for all contestants. The International Banking Act of 1978 limited the foreign banks' interstate expansion and imposed reserve requirements that will be fully phased in next year. Foreign bankers now feel the competition has been more than equalized. "If the purpose of the law was to make our cost of funds higher," says a top Japanese banker, "then the purpose was certainly attained."

Foreign banks in the U.S. raise about one-third of their funds in the Eurocurrency markets and the rest here. They usually pay more for funds in the U.S. than domestic banks do because they have fewer retail branches to provide cheap money from low-interest checking accounts. They raise funds mainly by selling certificates of deposit and commercial paper. Serge Bellanger, executive vice president of the New York branch of Crédit Industriel et Commercial, a big French bank, says foreigners generally have to pay a premium for this money. "Domestic banks have the advantage," he says, "because they are well known to the U.S. money market, while many foreign banks aren't." By the time the new reserve requirements are fully phased in, Bellanger estimates, foreign banks will have to set aside roughly $1.8 billion in non-interest-bearing accounts; at today's interest rates that would cost the banks more than $300 million in potential earnings.

Time to slow down

Now the American banks are beginning to fend off the competition. On major loans, they are frequently offering the "LIBOR option"—letting the customer pick a LIBOR-based rate rather than the prime. They are getting adept at foreign-exchange dealing and international-trade finance, where foreign bankers held an edge. Plenty of foreigners admit that the Americans they once regarded as pushovers are getting tough.

So with new competition and the loss of their cost advantage, the foreign bankers see their market shares leveling off or dipping a bit. "We need to slow down," says Bellanger. He thinks foreign banks will have to try to widen their loan spreads. Wilfried Guth, co-chief executive of Deutsche Bank, says the banks need a full percentage-point margin. If the players in the U.S. market hope to reach that, they'll all have to curb their lending appetite for quite a while.
—EDWARD MEADOWS

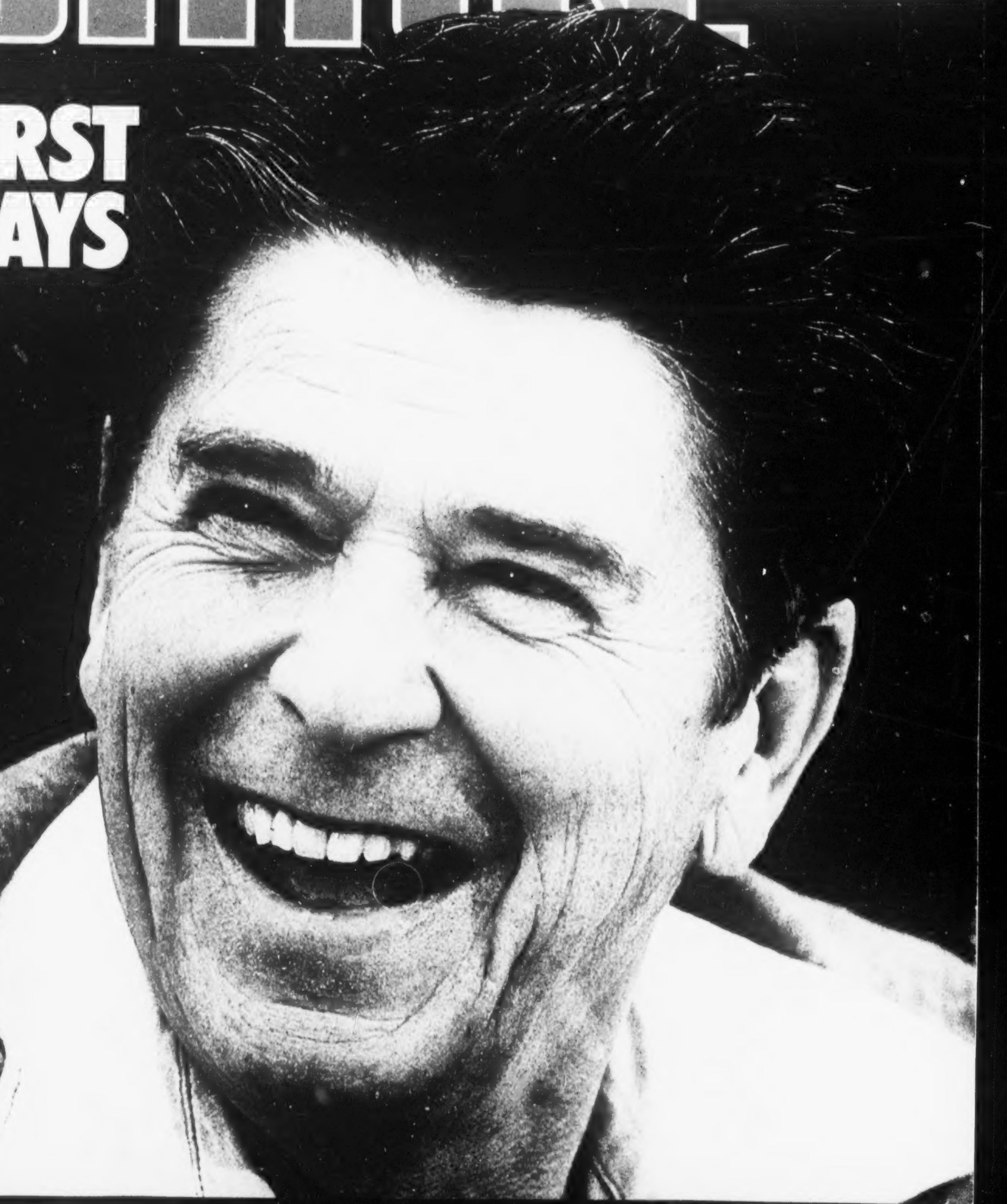
How K mart Plans to Be Born Again, Again

An American Leads British Steel Back from the Brink

Boyd Jefferies, the Mighty Mouse of Block Trading

$2.50
September 21, 1981

FORTUNE



THE FIRST 200 DAYS

An Appraisal

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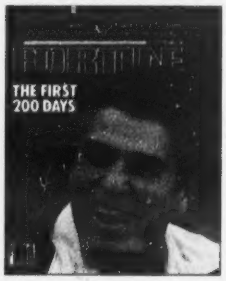

The cover photograph of a euphoric Ronald Reagan was taken at his ranch by Tom Zimberoff on the day the President signed his tax bill. An appraisal of Reagan so far begins on page 62.

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The Unsentimental Corporate Giver

John Robinette

by LEE SMITH

A teenager would call it a guilt trip.

Corporations have money and others don't, so ... The Reagan Administration, cutting the budget, suggests that corporations rescue at least some of the programs the federal government will no longer be able to support. Independent foundations warn grant recipients that they will be able to carry the recipients' research projects for only a year or so. And after that? Try a corporation.

Corporate philanthropy will not come close to filling those expectations. If corporations gave the maximum the Internal Revenue Service allows them to deduct—5% of taxable income—their contributions would amount to only about $12 billion, or roughly a third of the reduction in planned federal spending for fiscal 1982.

In any case, few corporations engage in philanthropy because others need money, as though a corporation were a well-heeled uncle who should spread his good fortune around the family. For the most part, corporations give because it serves their own interests—or appears to.

At first, corporate philanthropy—a phenomenon confined largely to North America—was closely bound to the giver's self-interest; it emerged in the late 19th century, when the railroads sponsored the YMCA hostels where their employees bunked down. When many more companies joined the contributions parade during World War I and started giving to the Red Cross, their self-interest was further removed but still identifiable. These days companies give to a mind-boggling variety of charities, most of them at least indirectly related to self-interest. A typical corporation might give money to the hospital that will be called upon when there's an explosion in Plant No. 4; the local college that supplies employees and the museum that uplifts them; and the U.S. Olympic Swimming Team, because a customer's son is on it.

Some large companies give money to causes that at a glance seem remote from the company's day-to-day concerns but on examination turn out to be important to them. Xerox, for example, lends money to provide housing for the poor in Stamford, Connecticut, the company's headquarters town. The money earns no interest for Xerox, but it earns the company a reputation as a good neighbor. Similarly, Atlantic Richfield helps support native artisans in Alaska partly because the company is the largest oil producer on the North Slope and wants the goodwill of the local population.

How much corporations give is impossible to determine precisely. For a start, charity means different things to different

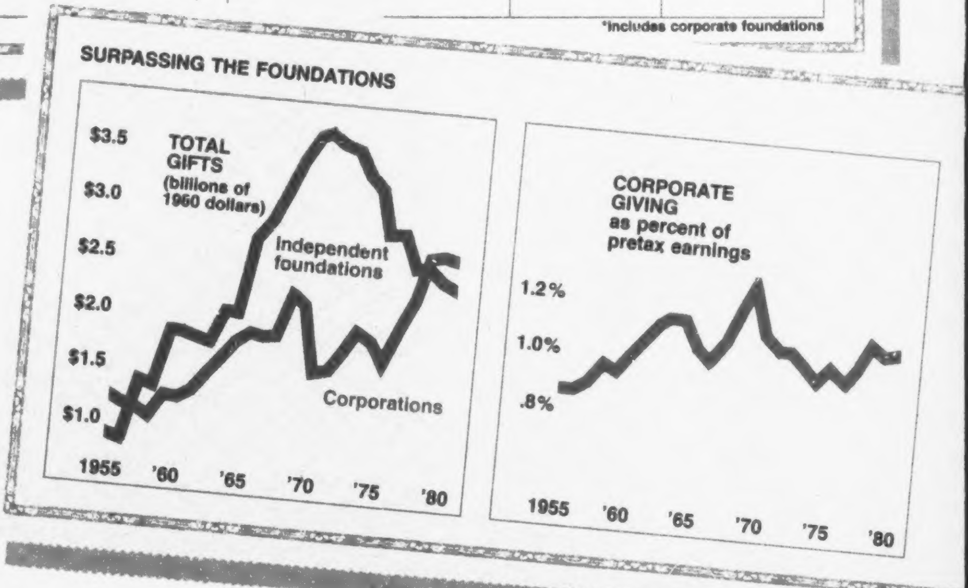
Research associate: Louis S. Richman

THE BIG GIVERS

THE MOST GENEROUS INDUSTRIAL COMPANIES OF 1980	Contributions* (millions)	Percent of pretax earnings
Exxon	$38.1	1.03%
IBM	$35.0	1.19%
Atlantic Richfield	$34.0	1.26%
General Motors	$22.6	(no earnings)
Mobil	$20.6	1.56%

EVEN SOME BIG LOSERS GAVE	1980 net loss (millions)	Contributions* (millions)
Chrysler	$1,710	$2.2
Ford	$1,543	$11.2
General Motors	$763	$22.6
International Harvester	$397	$3.0
American Motors	$198	$0.4
Firestone	$106	$1.7

*includes corporate foundations



Oil companies dominated the supply side of corporate philanthropy in 1980. Last year's losers were able to continue giving partly because in good years they put money into corporate foundations that can pay out in bad ones. Unlike an independent foundation, such as Ford or Carnegie, which is generally established with a onetime bequest, a corporate foundation retains ties to the company, which not only replenishes its coffers but decides where the money will go. The giving of independent foundations depends on the value of their portfolios, which explains their largess during the go-go stock-market years of the late 1960s. Corporate generosity depends mostly on earnings. As a percentage of earnings, corporate giving peaked in 1969—most likely because an income-tax surcharge that year made giving especially cheap.

companies. Exxon listed the $2.8 million it paid last year to underwrite *Great Performances* on public television as a charitable contribution, while Mobil called the $1.9 million it paid for *Masterpiece Theater* public relations.

Conference Board surveys suggest that in 1980 corporations spent nearly $2.6 billion on what they considered charity, or a little over 1% of domestic pretax profits. But that estimate represents only the dollar outlays companies declared on their tax returns (for tax purposes charitable contributions are treated as ordinary business expenses). It generally does not take into account such forms of giving as employee time spent helping a day-care center straighten out its books, depreciated equipment donated to local churches, or the use of the company auditorium by the Shakespeare society. Eastman Kodak examined its records for 1980 and calculated that for every dollar of the $10 million it gave in direct contributions, it gave an additional $2 in time and equipment.

Some doughty do-gooders are pushing corporations to give 5% in direct payments. Two principal pushers are Kenneth N. Dayton, chairman of the executive committee of Dayton Hudson Corp., and Lawrence A. Wien, a New York attorney and real-estate man and vice chairman of the ever-hungry Lincoln Center.

Dayton Hudson started giving 5% in 1945, directing most of the money into cultural and welfare programs in Minneapolis and St. Paul and other cities in which it operates stores. The company's munificence is based partly on expediency; stores can't survive in devastated cities. But social conscience is at least as important a motive. "I totally reject the view that the only business of business is business," says the soft-spoken, 59-year-old Dayton. "The purpose of business is to serve society." Following Dayton Hudson's example, 44 other businesses in the Twin Cities also give 5%. In addition, 5% clubs have sprung up in Louisville (48 members) and Baltimore (23 members), and there are 2% clubs

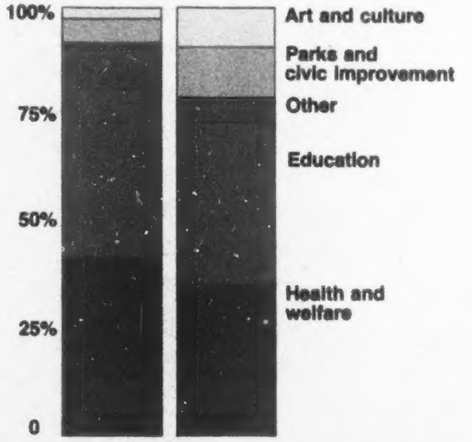
THE BIG TAKERS

PAY
TO THE
ORDER
OF

THE TEN LARGEST RECIPIENTS OF CORPORATE PHILANTHROPY IN 1980	Corporate funds received (millions)
American Red Cross	$40.3
Public Broadcasting Service	$30.0
Boy Scouts	$16.3
YMCA	$15.1*
Massachusetts Institute of Technology	$14.0
University of Michigan	$13.8
University of Illinois	$12.7
Harvard University	$12.4
Salvation Army	$12.1*
Stanford University	$11.0

*United Way estimate.

WHERE THE CORPORATE DOLLARS WENT



Art and culture get a larger share of corporate contributions these days, partly because companies now support local museums and symphonies to induce employees to take jobs in smaller cities. Health and welfare get relatively less; government and insurance plans have assumed more of the cost of hospital care. Higher education continues to be the largest recipient, however. Although it's commonly believed that most of that money goes to private colleges, state universities are big beneficiaries, especially those with large engineering schools.

in Kansas City, Seattle, and elsewhere.

Wien, cordial but crisply formal, persuades by confrontation. Several years ago, concerned about the inability of nonprofit organizations to meet rising costs, he decided to put the squeeze on big corporations. Borrowing from the tactics of other corporate gadflies, he bought stock in companies like Texaco, Northwest Industries, and Caterpillar Tractor, and put in their proxy statements resolutions requiring the companies to give more. "My main objective is to bring the contributions issue to the attention of top management," says Wien. "We go out to lunch and reach a compromise. This project has cost me about 70 lunches." The return on investment has been impressive. He helped persuade AT&T, for example, to step up its giving from the current level of less than one-half of a percent to a full 1% in the next few years, up from $38 million to $100 million or so.

The biggest companies aren't likely to get close to 5%. AT&T says it would be impossible for a company its size to give away that amount constructively. At 5%, AT&T would be laying out $500 million a year—or more than five times as much as the Ford Foundation, the largest independent foundation. The company would have to hire a huge staff of philanthropoids, as they are called in the trade. (According to one estimate, it takes one philanthropoid to give away $1 million prudently.) Customers and shareholders wouldn't tolerate such openhandedness—and even if they did, it would be ominous for a philanthropic powerhouse to have $500 million worth of influence over social and cultural projects.

Arrayed against Dayton and Wien is a different species of gadfly that opposes almost all corporate charity. Milton Friedman is supposedly the headmaster of the give-nothing school. "Corporations have no money to give to anyone," he insists. "It belongs to their workers, their employees, or their shareholders." But he makes two big exceptions, which bring his philosophy pretty much into line with

Lawrence Wien, 76, buys shares in corporations and prods them to give more to charities. Rather than suffer a Wien roast at the shareholders' meeting, some corporations make a deal with him beforehand. Wien is also part owner of the Empire State Building, which he can keep an eye on from his office window.

Joyce Ravid

corporate charity as actually practiced.

First, he says, closely held corporations in which the managers are the owners may contribute directly to charity to lessen the tax bite. Friedman also approves of contributions to local institutions, such as hospitals, colleges, museums, and parks, when they provide "marginal returns to the company greater than their marginal costs." If a $100,000 contribution to a public park makes a city more attractive and so helps retain employees, saving the company at least $100,000 in recruitment or other costs, it should make the gift.

Friedman refuses to call that philanthropy, however. To him, as to many companies, it is simply a business expense. "Real philanthropy," he says, "is that which will cost the company more than it will add to its value in the short term or the future." And it is real philanthropy that Friedman opposes. (His conviction did not stop him from accepting corporate underwriting for his public-television series, *Free to Choose.* "I'm against rent control, too," he explains, "but that doesn't mean I won't live in a rent-controlled apartment.")

Friedman's test for distinguishing legitimate business expense from real philanthropy seems a bit narrow. It implies that the additional income attributable to an improved park can be plotted on a graph. It can't. A broader and more plausible rule might be: real philanthropy is giving that lies beyond a corporation's self-interest. Determining how far the radius of self-interest extends from the company premises is difficult and, to some degree, inherently arbitrary. But companies should make the effort. They should not first decide how much money to give away and then look over the folks waiting on line.

Clearly the hospital that cares for injured workers lies within the ambit of a company's self-interest, as does the attractive park. So does the corporate matching-gifts program, first introduced in 1955 by General Electric as a fringe benefit meant to attract and retain employees. (GE matched $200,000 in employee gifts to higher education. Such programs are now one of the fastest-growing forms of corporate contribution, accounting for $39 million contributed by 846 companies last year. Some 126 of those companies now match on a more than one-for-one basis.)

Similarly, the corporations that underwrote *Free to Choose* can argue that their gifts were in their self-interest, since the series defends the market system, which is vital to corporate survival. Another company might justify a contribution to sickle-cell-anemia research and still another a gift to a ballet company on the ground that they promote a healthy society and so the company's success.

Dividends from the dance

Almost any project might qualify as serving some corporation's self-interest, but that doesn't mean every undertaking will. New York City has 200 or so professional dance companies, most asking for philanthropic support. Probably some of these groups could fail without significantly affecting the city's cultural life. Many corporations will conclude that even a single dance company isn't essential, that no identifiable chain of cause and effect leads from dance to the corporation's success.

But a few companies will help finance the ballet and a few others museums of Indian arts and others the NAACP's legal-defense fund because they believe a healthy society requires such institutions. Doing so, those corporations are likely to serve their self-interest in an additional way: because they stand apart from the crowd, they are likely to get recognition. For most corporations, even better than doing good is to be seen doing good.

AT&T can tick off several reasons it spends $3.5 million a year picking up the deficits the Boston, Chicago, Philadelphia, and other symphony orchestras accumulate touring the country. AT&T gets points with big customers by giving them free tickets. And the program "tells the employees that they're working for a quality

continued

The largest corporate contributions program—it will give away $45 million this year, or more than the Rockefeller and Carnegie foundations combined—is overseen by Stephen Stamas, Exxon's vice president for public affairs. With relatively few employees and correspondingly little need to support local institutions that employees depend upon, Exxon can concentrate its charity on projects remote from immediate concerns, such as interdisciplinary studies at universities. Often the job of running the charity program falls to an obscure executive about to retire. But Stamas, 50, is both vigorous and visible. He is, among other things, an overseer of Harvard and a director of the Council on Foreign Relations.

Joyce Ravid

company," says Edward Block, an executive vice president who supervises Ma Bell's contributions. "They comb their hair better. They work better."

Philip Morris is also clear why it lays out $20,000 to $250,000 per year for each of 15 or so exhibits of contemporary American painting and other visual arts. Says Barbara Reuter, a former art professor and now manager of corporate support programs at Philip Morris, "The people we're interested in impressing are the opinion leaders." Philip Morris wants to be perceived as a valuable corporate citizen when legislators ponder such questions as whether to eliminate tobacco subsidies or require deposits on Miller and 7-Up bottles.

Recipients, of course, recognize what makes them appealing to corporations. "We've got the Smithsonian up for sale," wisecracks Gene Katt, deputy director of the program fund for the Corporation for Public Broadcasting. What he means is that the CPB would like to develop a series based on the Smithsonian's vast collections of paintings, inventions, and other treasures and is seeking corporations to put up the money; in exchange, the underwriters would be listed in the credits and so would bask in the Smithsonian's glory.

Different companies, having different interests, need different philanthropic strategies. Following are four approaches that are alike only in that each has been carefully thought out to serve its creator's interests.

STAND-UP CONSERVATIVE. Edward Littlejohn, vice president of public affairs for Pfizer Inc., thinks that some corporations make charitable contributions as a sort of apology. "It's as though they were trying to justify their profits by giving some of them away," he says. He complains, moreover, that some corporations turn their backs on the market system that makes corporations possible. Littlejohn was disturbed when one huge corporation declined to contribute to a study of capitalism because it did not want to get involved in an ideological controversy. Littlejohn also cites a recent theatrical production in an eastern city. In the play workers complained about the emptiness of their jobs. In the audience—and applauding the broadside against capitalism—were executives of corporations that had sponsored the production.

Pfizer believes that its self-interest is tied to the success of the market system and traditional American values, and that it should spend at least a small portion of its $2-million-a-year contributions budget (1.9% of pretax earnings) strengthening them. Among the conservative causes that Pfizer contributed to last year were the American Enterprise Institute and the *National Review*.

Pfizer has also pledged a minimum of $5,000 a year to the Institute for Educational Affairs, founded two years ago by former Treasury Secretary William E. Simon and social critic Irving Kristol. The IEA aims to channel money into journalistic and academic projects that do not share the "adversary" ethos that, in IEA's view, disposes modern culture to condemn the society, including the economic system, that sustains it. The IEA made grants of $539,000 last year, including $28,250 for development of a course to instruct college teachers in the achievement of the American Founders and $20,000 to

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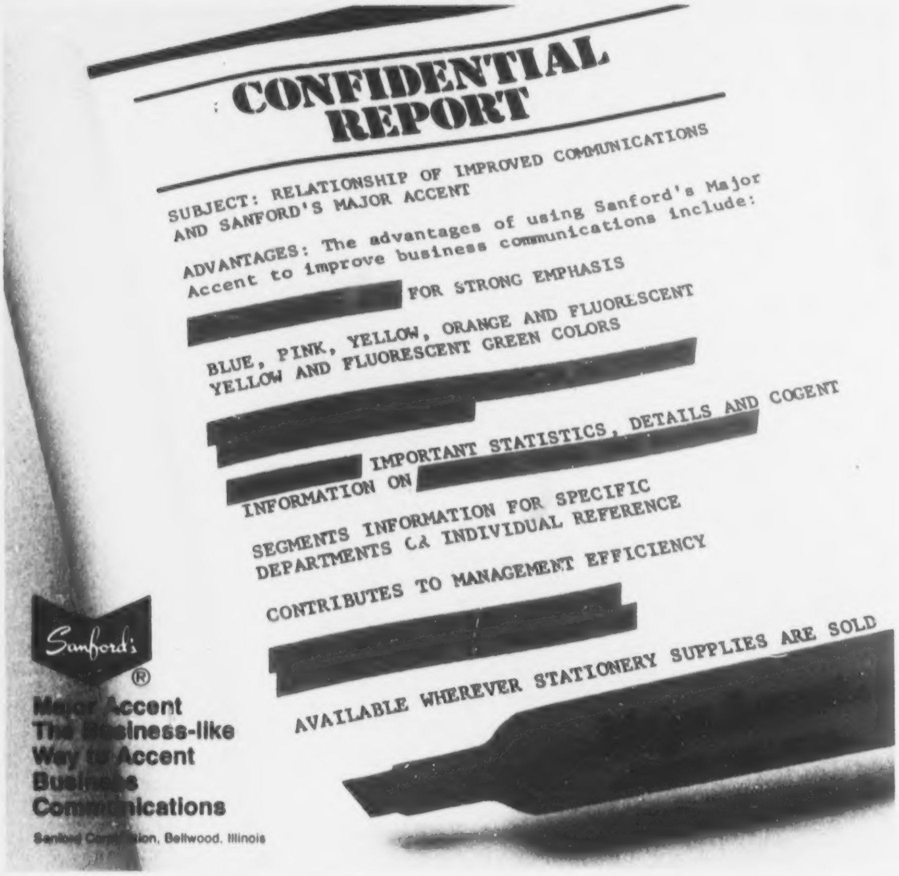
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TOUGH LIBERAL. "When we went public in 1971, we told investors right in the prospectus that we had strong convictions about our social responsibilities," observes Walter A. Haas Jr., chairman of Levi Strauss. True to that warning, the clothing manufacturer has been a generous contributor to charity, donating $9.6 million in 1980, or 3.1% of pretax earnings. (Several onetime gifts made that about double the company's usual amount of giving.) Much of the money finances projects for the poor and downtrodden. Haas believes the company's liberal reputation has helped recruit bright young people, who he thinks are likely to be interested not just in denim but in the nation's social fabric as well.

Levi Strauss is not a soft touch, however. It scrutinizes the programs in which it invests. In each of the 65 communities in which Levi Strauss has plants, employees are encouraged to seek out worthwhile projects, recruit colleagues, and raise funds for those projects. Only after the employees have voted with their time and dollars does the company join in. Last year Levi Strauss contributed some $1.5 million to such employee-initiated projects as a program for handicapped children in Benton, Arkansas, and welfare services for battered women in Memphis, San Antonio, and Hobbs, New Mexico.

PARVENU PATRON. Until three years ago, Interpace Corp., a Parsippany, New Jersey, manufacturer of plumbing fixtures, electrical insulators, and building products, had a conventionally passive contributions program. The United Way and a few other fund raisers would show up, and Interpace would hand out about $150,000 a year, 0.5% of pretax earnings.

At a conference on business and the arts, Chairman William Hartman was inspired by a consultant, who persuaded him that with a moderate amount of money Interpace could have an active, distinctive program. The company continues

continued

Getting to Wall Street via the museum

to give $150,000 a year to local charities, but rather than give all that money automatically to United Way, the company allows individual plants to allocate their shares as they like. J.P. Ward Foundries in Blossburg, Pennsylvania, helped pay for a hospital's kidney dialysis machine.

Interpace spends an additional $150,000 on sculpture, mostly backing shows at New York City museums. The offbeat scheme has two major objectives. The company wants its name to be familiar on Wall Street because it needs credit to acquire other companies; investment bankers sit on museum boards. Second, it wants to give managers and employees of newly acquired divisions a sense of Interpace's commitment to quality. Since 80% of Interpace's employees work with materials like clay, steel, and aluminum, a tangible art form like sculpture is something management believes they will understand and respect.

ENLIGHTENED EDUCATOR. In the mid-1970s General Motors, seeking to improve its management-recruiting program, decided to concentrate most of its generous education grants—$10.8 million last year—on 13 business schools and 42 engineering schools it deemed crucial. (Education grants account for close to half of GM's charitable giving; the rest goes to hospitals, museums, and other institutions where GM has plants.)

"Half a dozen years ago we would have given money to Harvard that might have wound up in the hands of an archaeology student on his way to look at King Tut's tomb," says Robert J. McCabe, who has run GM's contributions program since 1978. "Now we give money directly to Harvard Business School."

Unlike most big companies, GM does not match employees' contributions to schools. The company doesn't want to send its money to all the colleges that have provided employees in the past—just the ones it wants to tap in the future. Nor does GM endow chairs. Says McCabe: "If we give $1 million to a school to set up the Tom Murphy chair of eco-

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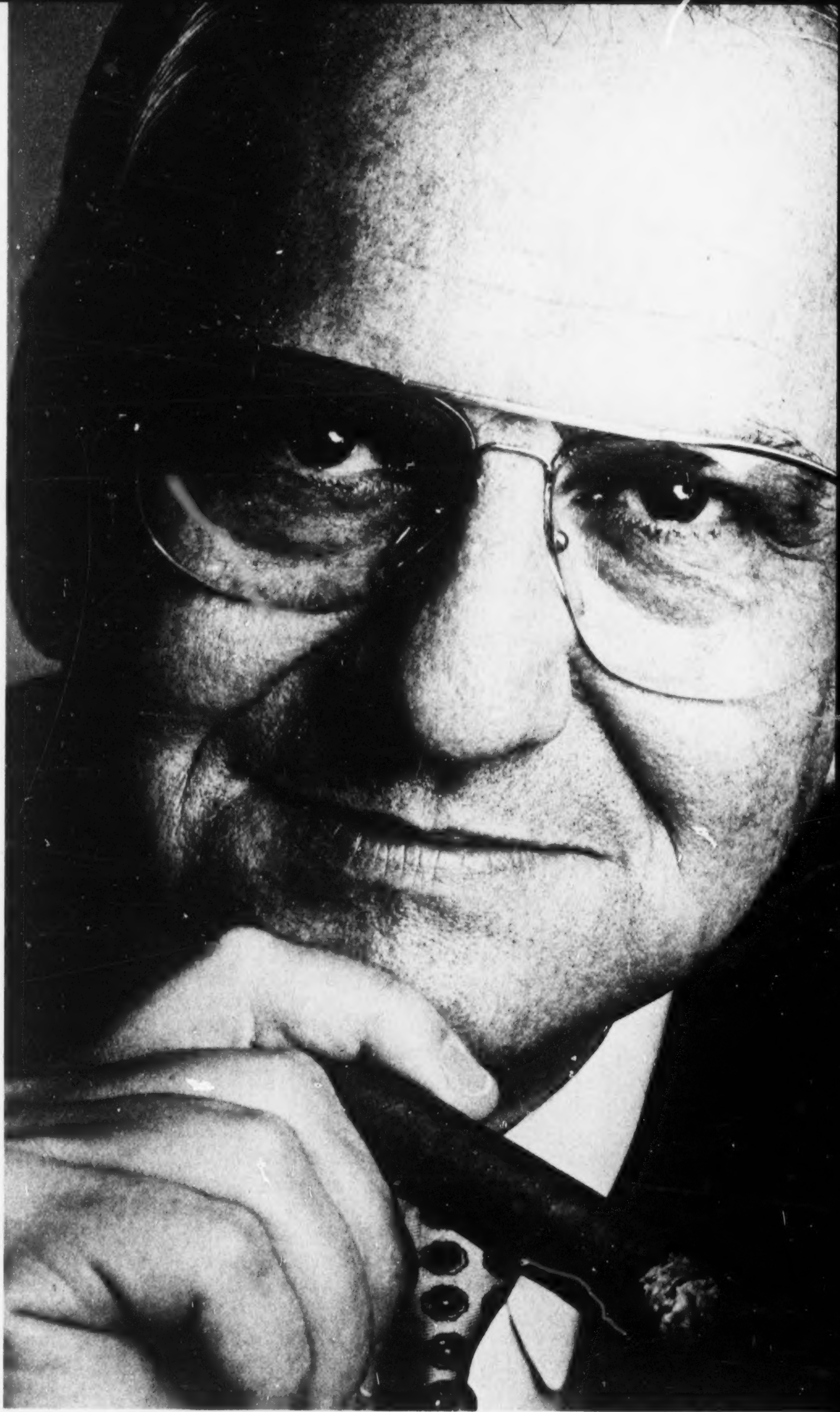

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nomics, that's the last time the school listens to us. If we give them a little something every year, we have their continuing attention for our ideas about things like changes in the curriculum."

McCabe would like to make an additional contribution to philanthropy—his experience as an unsentimental, dry-eyed giver. He is convinced that one of the principal reasons smaller companies do not set up contributions programs is the fear of being drowned in requests. McCabe says that GM and other hardened donors could establish an information center that would help novices deal with such worries. "We could show them the 35 form letters that GM has developed to turn down applicants," he says enthusiastically. "We have learned how to say no."

Over the past 25 years U.S. companies have given a total of perhaps $50 billion in 1980 dollars, roughly the equivalent of all the money spent on land and buildings at all private college and university campuses in that period. What difference has it made in the American topography? The impact is impossible to measure accurately, yet some projects stand out. Minneapolis probably would not have flourished so without the generosity of the city's businesses. Hartford's 55-piece symphony orchestra, its 26-member ballet company, and its 2,733-seat theater thrive largely because of the contributions of local corporations.

But most corporate money has slipped silently into the mainstream of charity. Corporations have done surprisingly little to trace it, evaluate its effectiveness, or even let the public know that they have made something of a sacrifice to provide it. Much of the public seems to be under the impression that charity costs the corporation nothing, that all those dollars would otherwise flow to the government as taxes. Corporations should give more—if it's in their interest—but they should also make it clear that they have given a lot already. In a cynical age they need all the credit they can get. ◼

What the Markets Are Telling Reagan
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TAKEOVERS

Stop Worrying About the Canadian Invasion

by JOHN CARSON-PARKER

At the height of the recent bidding for Conoco, Wall Street wags said there would soon be only two stocks on the Big Board: Seagram and a conglomerate of all the companies fleeing Seagram takeovers. What bothered some Americans about Seagram was that it was not only voracious but also Canadian—one of a number of Canadian companies that have displayed an appetite for acquisitions in the U.S. Conoco made a point of that in its defense against Seagram. In a public statement the weekend the struggle climaxed, a Conoco spokesman warned that if the Seagram bid succeeded, it "would encourage further raids by Canadian companies on U.S. companies."

Canadian companies have been acquiring sizable assets in the U.S. for several years now, but a couple of recent developments have brought the matter to the consciousness of Congress and the public. One is the scale and drama and suspense of the struggle for Conoco. Even more important is the Canadian government's discrimination against U.S. companies in Canada. (See "Trudeau's War on U.S. Business," FORTUNE, April 6.) Especially ire-arousing is the National Energy Program, announced by the government of Prime Minister Pierre Trudeau last October and due to be debated before long in Parliament. An avowed objective is to reduce foreign ownership of energy resources in Canada—which mainly means U.S. ownership. Specifically, the objective is to increase Canadian ownership to 50% by 1990, from a little more than 30% when the program was put into effect. To help meet that objective, the NEP starkly discriminates against foreign ownership of gas and oil resources. Under a system of incentives for oil and gas exploration, enterprises at least 75% owned by Canadians would get federal rebates of 35% of their costs, starting in 1982, and those 50% Canadian-owned would get 10%. Those less than 50% Canadian would get nothing.

The judgment of the marketplace was that the NEP dimmed the outlook for Canadian oil and gas properties owned by U.S. companies. Conoco points out that in the month immediately following the announcement of the NEP, stock prices of foreign-controlled oil companies in Canada dropped 15%, as against only 5% for Canadian-controlled companies. Some U.S. companies have complained bitterly that the decline in market value—the "Trudeau discount"—made their properties in Canada more vulnerable to Canadian takeovers.

"If you took every nickel"

Anger and distress about the NEP have colored U.S. attitudes toward Canadian investments south of the border. Actually, the value of U.S. acquisitions by Canadian companies over the last couple of years has been substantially smaller than the value of acquisitions by companies from several other countries, including West Germany and Britain. Yet there is talk in Congress of actions specifically aimed against Canada.

Canadian companies spent $1.1 billion last year to acquire assets in the U.S., against $590 million in 1979. But that's nothing for Americans to get alarmed about. "The U.S. is not a banana republic," observes William D. Mulholland, an American who is chairman of the Bank of Montreal. "If you took every nickel you could scrape together in Canada, you still wouldn't make a dent in the American petroleum industry."

What's lacking in the debate on Canadian acquisitions in the U.S., Mulholland believes, is a sense of proportion. At around $10 billion, Canadian investment south of the border is well under a quarter of American investment north of it. To J. Trevor Eyton, president and C.E.O. of the Toronto investment-management company Brascan, the difference seems so overwhelming that "it's difficult to understand what all the fuss is about."

Many Canadian business executives who deplore the storms the NEP is stirring nonetheless believe it's reasonable for Canada to want to reduce non-Canadian ownership of its energy resources. As one of them puts it, "very few countries would tolerate" foreign ownership of two-thirds of their oil and gas industries. Other countries, including Saudi Arabia, Venezuela, and Britain, have far more nationalistic energy policies, Canadians argue. So why all the fuss about poor old Canada?

One answer is that poor old Canada has put up with a large U.S. economic presence for so long. There are few things more

frightening than an angry sheep, and whereas everyone now expects Saudis, Venezuelans, and even Britons to be militant about their oil, hardly anyone anticipated militancy from Canadians. Another answer is that companies from these countries have not been going after big U.S. companies, or portions of their assets, in ways that lead to prolonged battles, widely covered in the press.

Especially vigorous was the fight that Cities Service Co. of Tulsa—No. 19 among U.S. oil companies—lately put up against Nu-West Group Ltd. of Calgary. Nu-West, a real-estate developer that branched out into oil and gas, bought more than six million shares of Cities Service, about 7% of the total outstanding. That was a bite bigger than the biter: by Cities Service reckoning, the cost of the stock, some $270 million, was about 10% greater than Nu-West's net worth at the end of 1980.

Whatever the people who run Nu-West had in mind, they must have been taken aback at the ferocity of the reaction in Tulsa. Cities Service brought a lawsuit against Nu-West and lined up credits amounting to $4 billion from U.S. and foreign banks, a daunting defense fund. Cities Service also threw some unusually pungent language Nu-West's way—"economic buccaneering," "Calgary Pirates." Executive Vice President Philip W. Wood charged that Nu-West's intention was "to strong-arm Cities Service into surrendering at distress prices certain valuable Canadian oil and gas properties in return for Nu-West's holdings of Cities Service stock." Nu-West's attack, Wood added, was a result of "the Canadian government's policies of nationalistic discrimination."

A shield for predators

Along with roundly knocking the NEP, Cities Service expressed two particular complaints about advantages Canadian companies have in going after assets of U.S. companies. One is that Canadian banks can be much freer than U.S. banks about lending corporate borrowers funds to acquire stock of other companies. U.S. banks are bound by a Federal Reserve Board margin requirement: if a company borrows to buy stock in another company and uses the stock as collateral, the bank cannot lawfully lend more than 50% of the market value. But Nu-West, as Cities Service told it, was able to borrow 100% of the value of the purchased shares, and thus could get into the game without putting up any cash.

Another major complaint was that Canada shields Canadian "predators" from counterattack. When a U.S. company aggressively acquires shares of a larger company, a standard defense against the cheeky maneuver is a tender offer for the aggressor. But a U.S. defender can't very well do that to a Canadian company. What stands in the way is Canada's Foreign Investment Review Agency. Established by Trudeau in 1973, FIRA has the power to prevent foreign investors from acquiring

Illustration by Wayne McLoughlin

control of Canadian companies unless their doing so would be "of significant benefit to Canada." It seems unlikely that, say, a preemptive purchase of Nu-West by Cities Service would qualify.

Even with these advantages, however, Nu-West did not get whatever it was after. The company became entangled in its own fishnet. With Canadian interest rates above 20%, it was incurring charges of more than $1 million a week on the money it borrowed to buy Cities Service stock. In mid-September, Nu-West agreed to sell the stock to Cities Service, at a price high enough to permit escape from the net at close to the breakeven point.

Coping with the tilt

A U.S. Congressman observed that Nu-West's move against Cities Service was "an instant replay" of a move another Calgary company, Dome Petroleum, had made against Conoco. On May 6, with Conoco having closed the night before at $49.88, Dome offered $65 a share for 20% of the stock. The avowed purpose was to use this stock to negotiate for Conoco properties in Canada, specifically Hudson's Bay Oil & Gas. "The bargaining advantage," Conoco said afterward, "was clearly tilted in favor of Dome due to Canadian government policies."

Despite the tilt, Conoco did all right. By inviting bids from other prospective purchasers of HBOG, Conoco prodded Dome into improving its original offer by 70% or so. Dome did get HBOG, as things turned out, but Conoco got what it called "fair value" in return.

That wasn't the end of the story, though—it had a sensational sequel. When Dome bid for 20% of Conoco, stockholders actually tendered 51%. A number of observers concluded that a bid for a controlling share of Conoco might capture its huge oil and gas reserves at a good price. That led to the grand-scale bidding war between Seagram, Mobil, and the eventual winner, Du Pont. (See "The Making of the Megamerger," FORTUNE, September 7.)

In the midst of its struggle to fend off Seagram, Conoco claimed that Seagram's bid sprang "from the nationalistic policies of Canada." There Conoco was treading on boggy ground. Seagram did not bid for Conoco assets in Canada—it bid for Conoco. Says a top Canadian executive: "It's crazy to make this into a nationalism issue, but that's what these P.R. guys are getting paid for."

Conoco nevertheless got a sympathetic hearing on Capitol Hill. There was a feeling among Congressmen, says a Washington lawyer representing Canadian interests, that "by God, we'll make those Canadians toe the line." But effective legislation to block the Canadian move south is most unlikely. For one thing, the business reasons behind it are so strong that roadblocks big enough to bring Canadian acquisitions to a halt are difficult to visualize.

The fundamental reason for the southward flow of capital is that the U.S. market is so much bigger than the Canadian market. "You have ten times the population, which means there are ten times the opportunities," says Albert Reichmann, head of Olympia & York, the big real-estate firm. Reichmann and his colleagues have spotted quite a few opportunities in the U.S. in recent years. Olympia & York owns eight large office buildings in Manhattan alone, including the headquarters of American Brands, Sperry, and ITT.

Canadian manufacturing companies that have acquired assets south of the border give the same sort of reason. A major player is AMCA International (formerly Dominion Bridge), which has acquired a dozen U.S. companies since the early Seventies, the latest being Koehring Co., a Milwaukee manufacturer of construction equipment, for which AMCA paid $140 million last year. Chairman Kenneth S. Barclay observes that if his company

Energy, Manufacturing, Retailing

Acquirer	Year	Acquisition	Amount
Seagram Co., Montreal	1981	Conoco: 25.5% of stock, to be traded for approximately 20% of Du Pont stock	$2.6 billion
Hiram Walker Resources, Toronto, in both alcoholic beverages and energy—like Seagram	1981	Davis Oil Co., Denver: gas and oil properties in Wyoming, Oklahoma, Texas, Louisiana	$6[illegible] million
Genstar Ltd., Vancouver, building materials, land development, financial services	1980	Flintkote Co., Stamford, Connecticut, manufacturer of building materials	$400 million
Brascan, Toronto, holding company (partly owned by the Bronfman family)	1981	Scott Paper Co.: increase in equity to 20.5%	$211 million
Dominion Bridge (now AMCA International), Montreal, controlled by Canadian Pacific	1980	Koehring Co., Milwaukee, machinery manufacturer	$140 million
Bow Valley Industries, Calgary, energy resources	1978	Flying Diamond Oil Corp., Denver	$130 million
Steinberg Inc., Montreal, retailer	1981	Smitty's Super Valu, Phoenix, supermarket [illegible]	$125 million
Trimac Ltd., Calgary, energy and transportation services	1980	Cactus Drilling Corp., Dallas: 37% of stock	$122 million
Imasco Ltd., Montreal, food processing, tobacco, retailing	1981	Hardee's Food Systems, Rocky Mount, North Carolina: increase in equity from [illegible] to 100%	$85 million
Dominion Bridge	1977	Amtel Inc., Providence, diversified company in manufacturing, construction, petroleum marketing	$50 million

Canadian Money Rolls In

Despite all the excitement stirred up by unfriendly Canadian takeover attempts, most of the Canadian investment flowing into the U.S. comes in quieter forms—friendly acquisitions, minority shareholdings, and above all, real-estate development. The table at left above lists the biggest deals of the last five years apart from real estate. Not included are Canadian acquisitions of U.S.-owned assets in Canada. Members of the Bronfman family control two of the acquirers on the list: Seagram and Brascan, which this year increased its stake in Scott Paper from 12% to 20.5%. In the real-estate table, only the last item represents purchase of existing buildings. All the rest are development or redevelopment projects. The dollar figures are developers' estimates of the overall costs.

Real Estate

Developer	Year	Project	Amount
Cadillac Fairview, Toronto, North America's largest publicly held development firm	1981	Los Angeles: California Center, redevelopment project (50% partnership with U.S. developers)	$1.2 billion
Olympia & York, Toronto, privately held real-estate giant	1981	New York: four office towers at Battery Park City	$1 billion
Olympia & York	1980	San Francisco: Yerba Buena, office building, hotel, condominiums, stores	$500 million
Bramalea Ltd., Toronto, real-estate developer	1981	Dallas: two office towers, hotel	$500 million
Campeau Corp., Ottawa, commercial developer and apartment builder	1981	Dallas: three office buildings, retail mall	$400 million
Campeau Corp.	1981	Houston: high-rise office building	$400 million
Campeau Corp.	1981	San Jose: residential, hotel, retail complex (joint venture with local developer)	$400 million
Bramalea Ltd.	1980	Chino Hills, California: Rolling Ridge Estates, residential, retail development	$400 million
Cadillac Fairview	1979	Houston: Houston Center, office, hotel, retail complex (joint venture with local company)	$350 million
Olympia & York	1977	New York City: purchase of eight existing office buildings	$320 million

wants to acquire another whose sales and earnings would make a material difference to those of AMCA ($1.1 billion and $47 million), "the opportunities for doing so in Canada are few."

Many fast-track Canadian companies feel they have as much of the Canadian market as is healthy or promising. "Having 70% of the Canadian market for our products, we began looking outside the country," says Richard W. Wertheim, assistant vice president for investor relations at Northern Telecom, the big manufacturer of communications equipment. It now has 16 manufacturing facilities and 12,000 employees in the U.S.

To escape the buffoons

"The sense that you've got to look south for growth is in every boardroom in Canada," says a top bank executive in Toronto. As recently as the late 1960s, he adds a little sadly, this was not so: "Canada then was very much the land of opportunity, for Canadian as well as U.S. companies."

So while Trudeau has been shrinking opportunities for U.S. companies in Canada, he has also, it seems, been doing the same for Canadian companies. Says an executive of a big Toronto conglomerate: "With the bunch of buffoons we have in Ottawa, we're not going to throw good money after bad by investing here." Duff Scott, an executive vice president in the investment-banking firm of Greenshields Inc., adds that the C.E.O. of any Canadian company has to be thinking, "We've got Trudeau, we've got an increase in government interventionism; it would be nice to have a good proportion of our assets in another country."

Highly discouraging to Canadian investment in Canada is "the Canadian disease": chronic bickering between the federal government and the provinces, and between various regions of the country, as well as the separatist leanings in Quebec. And under Trudeau the disease seems to have worsened. It's true that a conspicuous political conflict recently eased with the agreement between the Trudeau government and Alberta, the province that produces most of Canada's oil—Ottawa agreed to let domestic oil prices go up, Alberta agreed to let Ottawa take a bigger share of oil revenues. But that left plenty of political stresses for Canadians to worry about.

The country's downbeat economic outlook is also driving capital out. Canada has a bad case of stagflation, and the business community seems to have little faith that Trudeau will do anything very helpful about it. According to Montreal's C.D. Howe Institute, a leading research organization, "Canada is entering the 1980s with its confidence shaken and its plans for the future in disarray."

By contrast, the U.S. looks inviting—particularly with its new atmosphere of deregulation and easing tax burdens. Apparently this was a major factor in the decision of Hiram Walker Resources Ltd. to put up $630 million to buy oil and gas properties from Davis Oil Co. of Denver.

Clinching other arguments, in the view of many Canadians, is the conviction that a lot of U.S. assets are undervalued. The long weakness of the stock market persuades many foreigners that a big rise in American equities is overdue. As Montreal management consultant Charles Perrault puts it, the perception in Canada is that "there are better buys in the U.S."

By its own boomerang

With so many factors favoring a southward flow of investment, Canadian business people hope the preservation of Conoco as a U.S.-controlled entity will bring a cooling off in Washington. Conoco, however, may get bopped by its own boomerang. During its struggle to fight off Seagram, the company suggested that the Interior Department declare Canada a "nonreciprocal" country under the terms of the rarely invoked Mineral Lands Leasing Act of 1920. If Interior did that—because of Ottawa's refusal to give U.S. companies leasing privileges similar to those available to Canadians—then the act would restrict Canadian investment in U.S. companies holding interests in U.S. federal leases. But that would include Conoco leases. Since Seagram will apparently end up owning some 20% of Du Pont, invoking the Mineral Lands Leasing Act could hinder Du Pont's exploitation of Conoco assets.

For its part, Capitol Hill is going to be considering at least two bills to rein Canadian companies in. The more drastic one would impose a flat nine-month halt on Canadian acquisitions of more than 5% of the stock of U.S. energy companies. Unless "a new Conoco" comes up, Washington observers say, this bill has little chance of becoming law, but they think the milder

How They See It from Canada

These chief executives agree on at least one thing: Americans are overreacting to Canadian acquisitions. J. Trevor Eyton, 47, president of Brascan, finds it "difficult to understand what the fuss is about." William D. Mulholland, 55, a U.S. citizen who is chairman of the Bank of Montreal, reminds his countrymen that the U.S. "is not a banana republic." Ian D. Sinclair, 67, chairman of Canadian Pacific Enterprises, feels Americans aren't sufficiently aware that U.S. companies control dominant shares of several major industries in Canada, "not just oil."

Eyton of Brascan

Mulholland of the Bank of Montreal

Sinclair of Canadian Pacific Enterprises

one has pretty good prospects of passage. Under its provisions, Canadian acquirers borrowing funds to buy stock of U.S. companies would have to comply with the Fed's 50% margin requirement. The rule would apply to all foreign acquirers, not just Canadians, but there is little doubt that it is mainly aimed at Canada. According to a veteran observer of the Washington scene, "People around here are thumping the table and saying Canadian companies ought to be in compliance like everyone else."

Into the hands of jingos

While the bill might make Congressmen feel better, its effect would be only cosmetic, some Canadian bankers say, because the application of margin requirements would make little difference. "If they had been applied to Canadian banks over the last few years, both in the U.S. and within Canada, I doubt very much if they would have prevented *any* of the mergers that have gone through," says a senior Canadian banker who has taken part in many merger loans. Either the acquirers borrowed on their general credit, rather than on margin, he explains, or the banks took pains to ensure that their loans complied with U.S. laws anyway. The way Cities Service tells it, however, the imposition of a 50% margin requirement would have put a considerable restraint on Nu-West.

If the result of congressional efforts is no more than cosmetic, that will suit the White House just fine. Anything done in retaliation against nationalistic Canadian policies "would play right into the hands of jingoistic politicians," says a senior Administration official.

Paradoxically, it may well be that moves by the Canadian government will do more to stop Canadian acquisitions in the U.S. than anything done in Washington. Ottawa is extremely concerned about the weakness of the Canadian dollar, recently worth a mere 83 U.S. cents. Finance Minister Allan MacEachen attributes part of this weakness to acquisition spending, so he has asked Canada's leading banks to restrain their financing of such ventures—and, says William Mulholland, the banks have done so.

This doesn't mean that the move south will come to a halt. For one thing, says Mulholland, banks such as his will continue to finance south-of-the-border acquisitions that make sense from the standpoint of Canada's balance of payments: in other words, those that bring back more in earnings than they cost in debt service. For another thing, Canadian companies can borrow outside Canada—in Japan, for example.

Most important of all, the basic rationale behind the move south is likely to overwhelm artificial barriers. Canadian corporations will certainly pay heed to their government's wishes, says Ian D. Sinclair, chairman of Canadian Pacific Enterprises (the investment arm of Canadian Pacific Ltd.). But if a U.S. deal came up that he wanted to do badly enough, "I'd likely go up and discuss it with them." He'd offer to spread the payments out or do the deal in some currency other than U.S. dollars—financing it in the Euromarkets, for instance, if that would be helpful. He gives the strong impression that, in such conditions, Ottawa would not stand in the way.

As Canada counts the costs

Should Washington stand in the way of Canadian Pacific or any other Canadian company that wants to acquire assets in the U.S.? That question should be separated from the question of what the U.S. should do about Canadian discrimination against U.S. companies that own assets in Canada. Some of the commentary in the U.S. has failed to distinguish between these two very different matters.

With a minimum of bluster, the U.S. government should use whatever diplomatic persuasion and pressure it can to secure fair treatment for U.S. business in Canada. In time, diplomacy will get help from economics, as the drying up of U.S. investment in Canada costs Canadians orders and jobs. Sooner or later the Canadian government will be forced to recognize that the discrimination is self-damaging. That recognition, to be sure, will not nec-

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essarily turn Canada away from its nationalistic economic policies. They have an emotional underpinning that may prove resistant to calculation of costs and benefits. But in any event, drum-banging and overt retaliation on the part of the U.S. are likely to do more harm than good.

Disruption of U.S.-Canadian relations would do damage on both sides of the border. Canada is the largest market for U.S. exports and the country in which U.S. business has the largest investment stake. Ian Sinclair notes that "it's not just oil" in Canada that is dominated by Americans. The chemical, pharmaceutical, and automotive industries are also largely controlled by U.S. companies. This, he adds, "is overlooked by Americans."

Foolish to turn them away

As for the investment flowing in from Canada, the U.S. should let it flow. Since U.S. business has enormous investments abroad—amounting to well over $200 billion—the U.S. is in no position to put up barriers to foreign investment. Says a senior U.S. policymaker: "Anything we've come across so far would hurt us more than them."

What's more, the inflow of Canadian capital is a boon to the U.S., not a burden to be resisted or endured. Incoming capital creates demand and jobs. With interest rates at lofty heights, capital is obviously scarce and valuable, and if Canadians want to bring some of theirs into the U.S., it would be foolish to turn them away.

Perhaps the most dispassionate indicator of the effect of Canadian acquisitions is what they do to U.S. stock prices. Canadians were the catalysts in Conoco's jump from less than $50 to more than $90. And when Seagram pointed its magic wand at St. Joe Minerals, notes the monthly *Canadian Business*, "it not only launched St. Joe's shares on a 100% surge, but bolstered share prices from one end of the previously depressed mining spectrum to the other." Stockholders in target companies, then, can give the Canadian acquisition drive three cheers. Americans generally should give it at least two. F